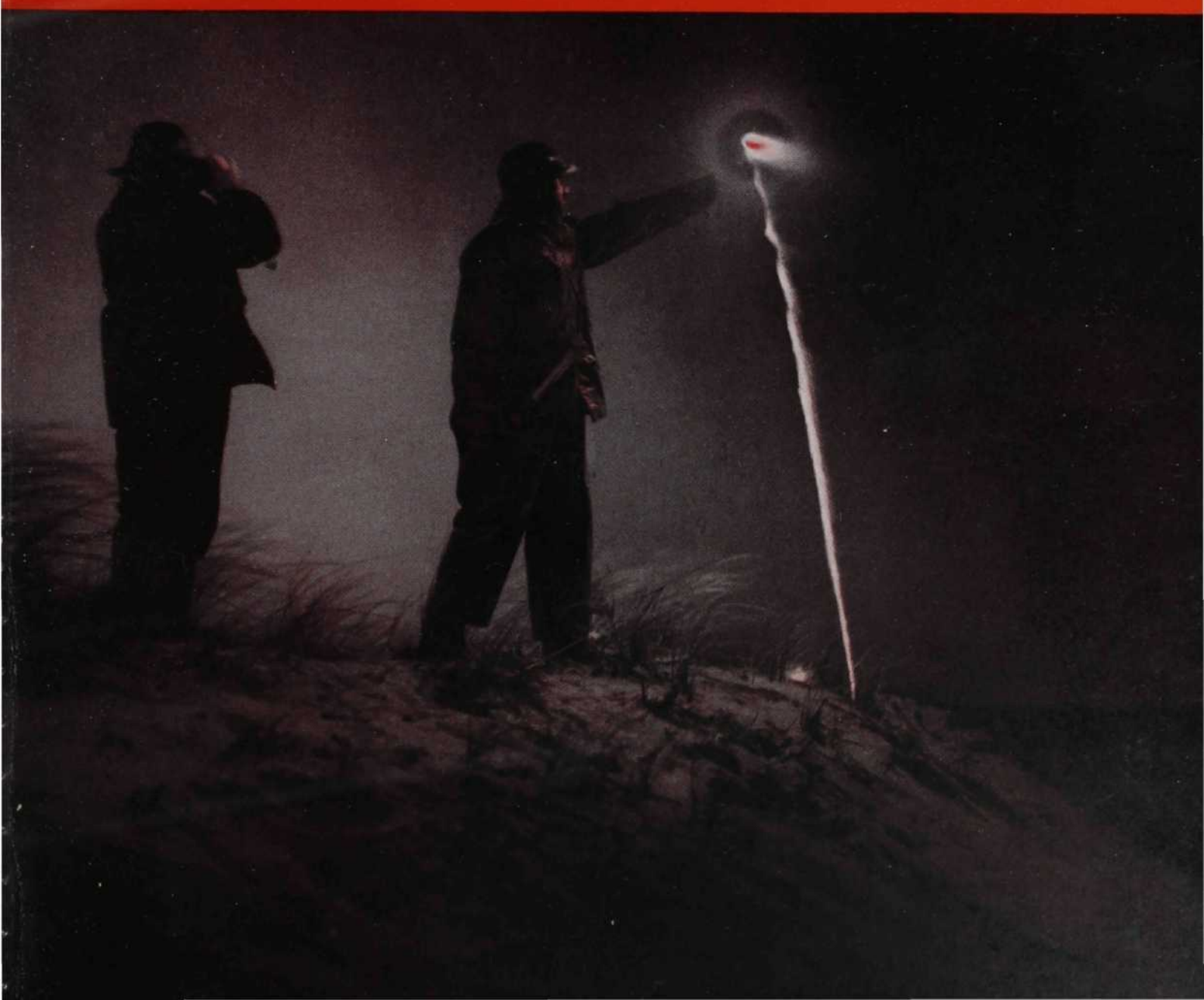
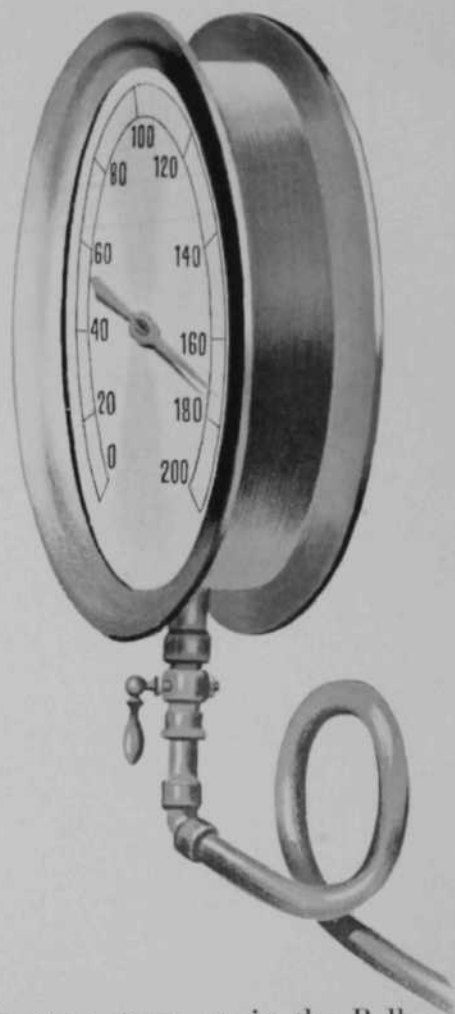


NATION'S BUSINESS

MAY • 1942



“Carrying
lots of pressure
these days...”



“THERE is more steam up in the Bell System than I ever remember. The wires hum with war and wartime production. There's more telephoning than ever before.

“The pressure of war and war's work is on—especially on our toll lines. If you are going to use Long Distance you can help by —

Knowing the number you want to call.

Calling in the less busy hours — before 10 A. M. and after 8 P. M., for example.

“Let's give vital war calls the right of way and make equipment go as far as possible, saving copper and other materials for the war.”

BELL TELEPHONE SYSTEM



“The Telephone Hour”—presenting great artists every Monday evening — N.B.C. Red Network



The Tires that Go to Sea

A typical example of B. F. Goodrich leadership in truck tires

YOU don't see the tires? Look closely and you'll find 12 of them—solid rubber tires on the "bogie" wheels that carry the endless track. And the track itself is rubber—a "square tire" we call it.

Many, many thousands of special B. F. Goodrich tires on all manner of combat vehicles are going to sea these days. They're the tires that you might have had if it were not for the war. But it makes you feel good, doesn't it, to think of the vastly more important job those tires are doing today.

B. F. Goodrich now supplies tires for essential civilian use as well as for military purposes. Tires which conserve rubber by providing more mile-

age per pound of casing. We don't ask you to buy tires today. Instead we say, guard your tires carefully, make them give the last, final mile of service for your country. And then, when you must buy, get good tires.

B. F. Goodrich Speedliner Silver-towns for trucks and buses have an amazing record for long mileage in all types of service. They are built with a broad, flat-tened tread construction. They're made with Duramin, the famous B. F. Goodrich discovery that keeps rubber young. Two of many reasons for extra miles.

Free Book for Truck Owners

To get more extra miles from Silver-towns or any other tire we suggest you write for a free copy of the new Operator's Handbook. It contains 100 pages of practical tire information. It will save you money, make your tires last longer. Write The B. F. Goodrich Co., General Offices, Akron, Ohio, or Los Angeles, Calif.



In war or peace
B.F. Goodrich
FIRST IN RUBBER





You Can Do It **FASTER** with **MODERN SCALES**

To speed compounding of materials, this Fairbanks Dial Scale was built into a charging car which travels in a pit. At the touch of a button the Printomatic gives an accurate printed record of each batch.

tions which often speed production surprisingly. They *count* small parts and products. They furnish weight records for accounting and inventory control. They weigh and disburse preset amounts *automatically*, and can keep ingredient proportions *secret!*

WE WANT TO HELP YOU

We are anxious to do everything we can to help speed American production. Possibly our scale engineers could suggest new and more efficient applications of scales in *your* plant, or modifications of your present scales to attune them to today's tempo. Write Fairbanks, Morse & Co., Dept. E56, 600 S. Michigan Ave., Chicago. Branches and service stations throughout the United States and Canada.

● Rare is the weighing job which can't be done faster and more precisely with today's vastly improved scales. These scales *print* weight records more quickly than a man can read and write them. They *eliminate human errors*. They weigh while materials are *on the move*.

But—important as those advantages are—don't dismiss modern scales as nothing more than better weighing instruments. For scales have assumed amazing *extra* func-

FAIRBANKS • MORSE SCALES

DIESEL ENGINES ELECTRICAL MACHINERY MAGNETOS RAILROAD EQUIPMENT WASHERS-IRONERS STOKERS
PUMPS MOTORS FAIRBANKS SCALES WATER SYSTEMS FARM EQUIPMENT AIR CONDITIONERS

COUNT *THIS* ARMY IN !

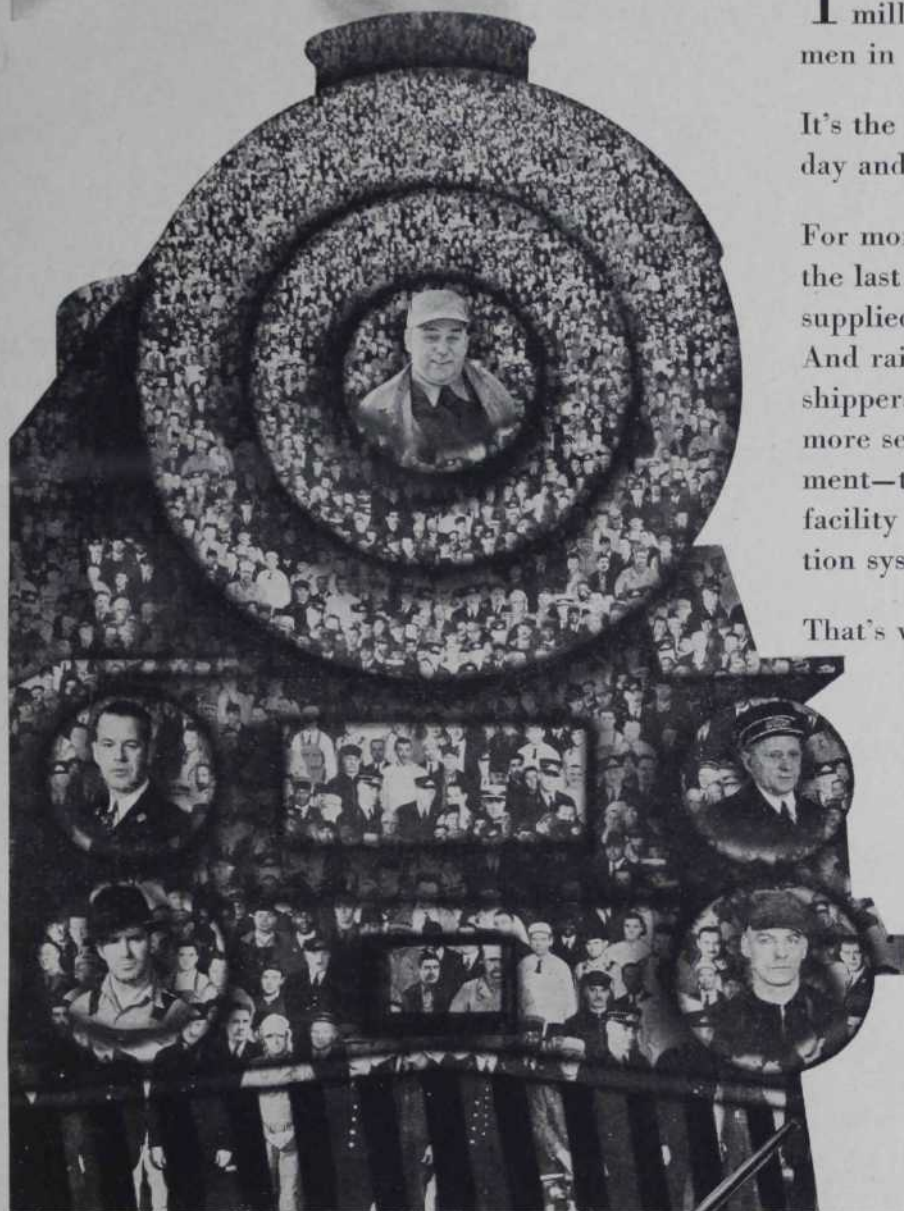
THERE'S a trained army more than a million strong working to back up the men in uniform.

It's the army of railroad men, on duty day and night in every state in the Union.

For more than twenty years—ever since the last war ended—this army has been supplied with better and better equipment. And railroads, military authorities and shippers have worked out plans to get more service out of each piece of equipment—to get the most use out of every facility of the world's greatest transportation system.

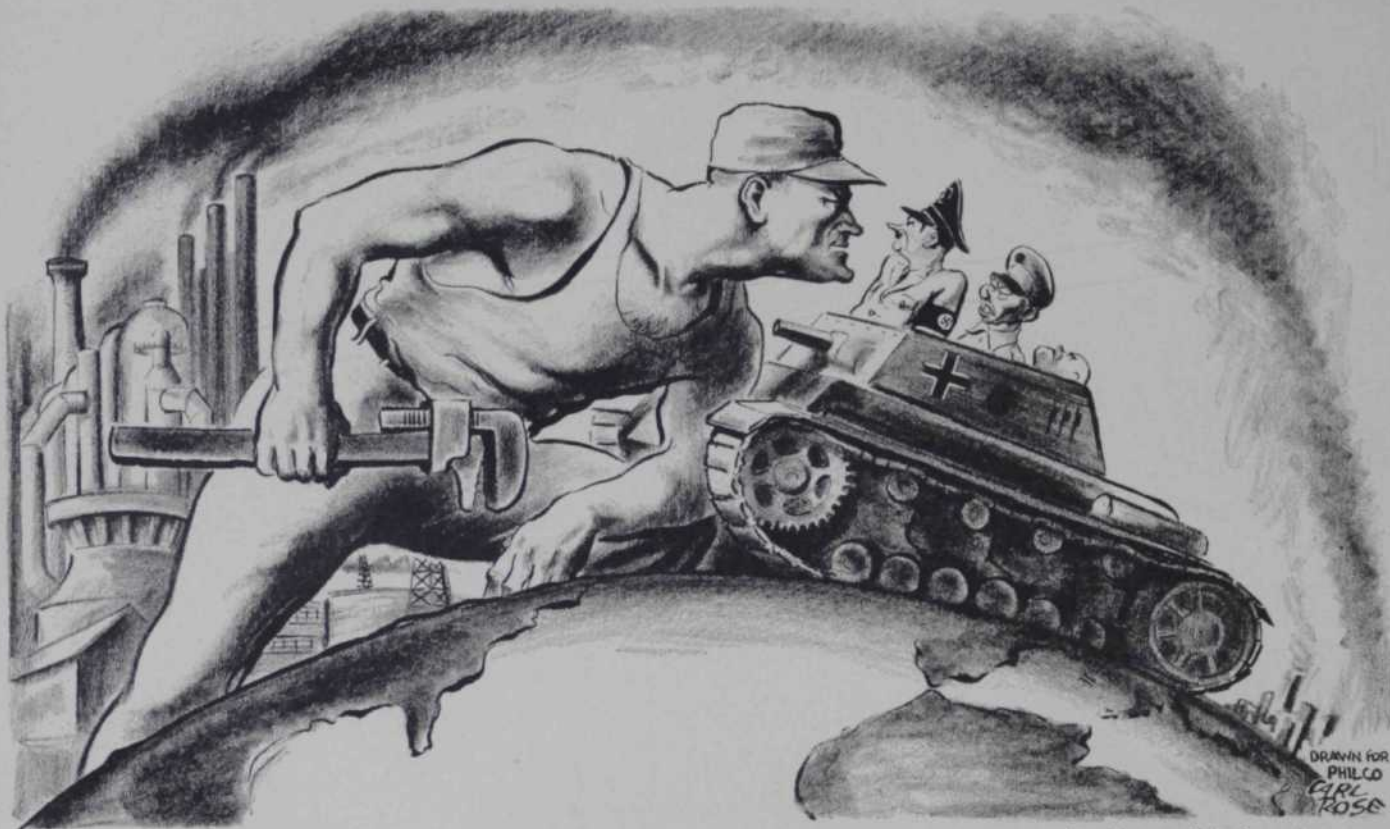
That's why this railroad army is meeting emergency demands—why, for every minute of the day and night, it is moving *a million tons of freight a mile*—an all-time record for this or any other transportation system in the world.

All this veteran army needs, to meet future challenges, is a flow of new equipment great enough to match the rising tide of America's war production.



ASSOCIATION OF
AMERICAN RAILROADS
 WASHINGTON, D. C.

"Who's telling who where to get off?"



Copyright 1942—Philco Corporation

"More! Better! Sooner!" is the war-cry of Philco's soldiers of production. In this cartoon, Carl Rose interprets the spirit that spurs them on. Posted on the walls of the Philco factories, it is one of a series being drawn for Philco by America's leading editorial cartoonists as an inspiration to the men and women who are helping to produce the weapons of victory.

★ ★ ★

WE HAVE a job to do . . . the biggest job that has ever faced the minds and muscles of American industry. This is the time for our workers to prove that we have earned our reputation as the world's masters of mass production! This is the time for the genius of our industrial scientists and engineers to preserve their gift to America, the world's highest standard of living! And preserve it they will, gloriously and decisively. Production, *in the American way*, is the key to victory!

And with that victory another triumph will come. Peace, yes! Freedom, yes! But a vastly greater enjoyment of both for us all. The new and deadlier swords that men fashion with fierce inspiration today will be beaten into plowshares of untold happiness for tomorrow.

Here at Philco, our engineers and scientists

are devoting their toil and their genius to the weapons of war . . . communications equipment, airplane and tank radios, artillery fuzes and shells. Already in their laboratories and assembly lines, the fruits of their efforts hold undreamed-of promise for the future. American industry will deliver the implements of victory to our brave and valiant forces . . . and with them, new and abundant joys for the tranquil years of peace!

Free Limited Offer . . . While available, a full size reproduction of the original drawing by Carl Rose will be furnished gladly upon request. Simply address Philco Corporation, Philadelphia, Penna., and ask for Cartoon Number 5L.

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Through its national service organizations, Philco offers to its millions of owners throughout the land, at uniform and reasonable charges, the means of conserving and prolonging the use and enjoyment of Philco products.

**RADIOS, PHONOGRAPHS, REFRIGERATORS
AIR CONDITIONERS, RADIO TUBES, PARTS**

**INDUSTRIAL STORAGE BATTERIES FOR MOTIVE POWER,
SIGNAL SYSTEMS, CONTROL AND AUXILIARY POWER**

NATION'S
BUSINESS

Chamber of Commerce of
the United States

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R. L. VAN BOSKIRK

Every unit of American manpower from 20 to 65 is now under scrutiny by the Government. If you are going into government service will it be in the armed forces or in a production plant? If neither, what will become of you and your business when the nation is totally mobilized to win the war?

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"Plans" May Deny Us Food

LAWRENCE SULLIVAN

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Legal Lesson by a Pastry Cook

BEATRICE SCHAPPER

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FREDERICK SHELTON

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FRED DeARMOND

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SAMUEL B. PETTENGILL

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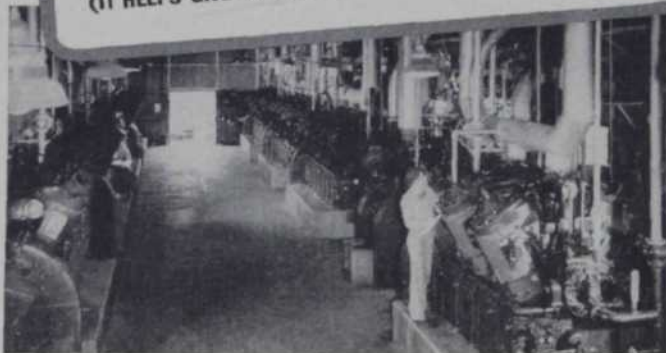
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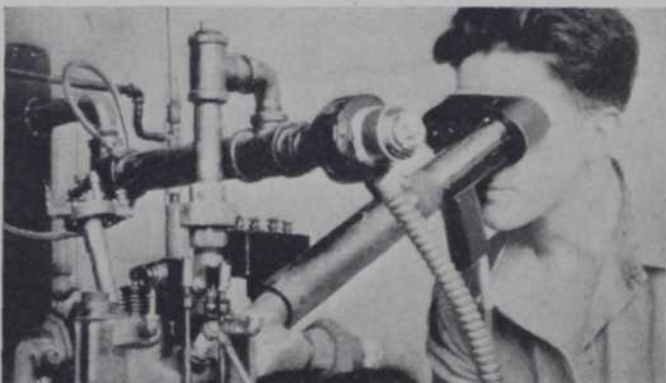
NUMBER 5

Can you identify this industry?

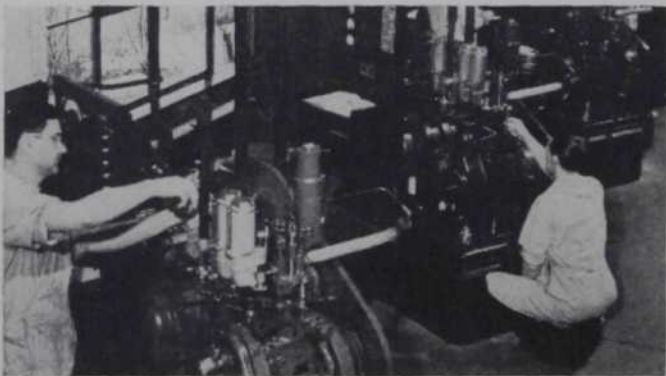
(IT HELPS GIVE EXTRA POWER TO AMERICA'S WARPLANES)



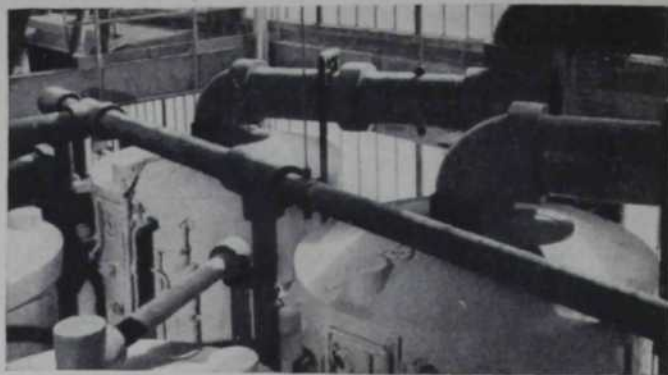
CLUE No. 2 . . . The battery of compressors above is used to compress petroleum gases to make ethyl chloride. This chemical is very necessary—but there is not a drop of it in the finished product.



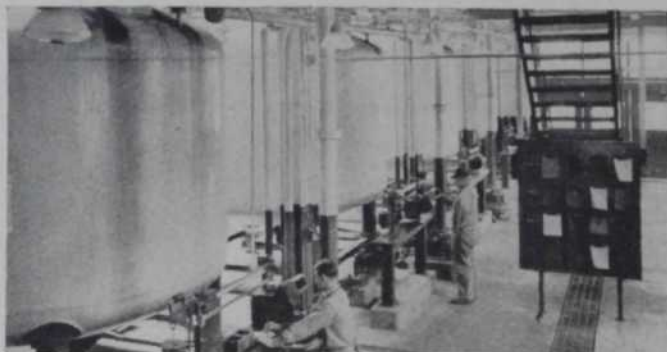
CLUE No. 4 . . . This research engineer is using an optical pyrometer to tell, by color, temperature of an exhaust valve in an engine running "wide open." Research is very important in this industry.



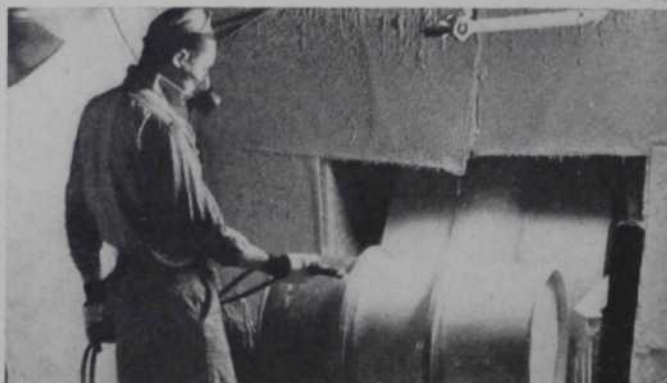
CLUE No. 6 . . . The final clue is an easy one—if you're an automotive or petroleum engineer. These machines are "C.F.R." knock rating engines which are used in the six gasoline-testing laboratories.



CLUE No. 1 . . . The basic raw materials used are—salt, sulphur, sea water, molasses, lead and petroleum gas. This picture shows part of the equipment for evaporating salt brines to produce table salt.



CLUE No. 3 . . . Tons of the various ingredients that make the finished product are blended in these weigh tanks at one time. They measure the ingredients accurately to within one part in ten thousand.



CLUE No. 5 . . . Painting a drum to ship the product overseas for war use. Each drum is cleaned and painted gray each time used, so the least leak of brightly colored product would show immediately.

It's probably no secret to you by now—these are a few pictures of the company that produces Ethyl brand of anti-knock fluid. Oil refiners use Ethyl fluid to produce the high-octane gasolines that give extra power to America's warplanes, tanks and other motorized equipment. Fortunately, the Ethyl Corporation has sufficient plant capacity to supply all war needs without delay and still produce anti-knock fluids for improving gasoline used in the tractors, trucks, buses and passengers cars of our motor transportation system.

Simple

WALTER Reuther is a big shot C.I.O. leader. Last year he electrified the New Deal clique with the so-called Reuther Plan to produce 500 airplanes a day from the unused facilities of the automobile industry. The only thing that stood in the way was the stubbornness of the industry's management. There, said the Planners, lay the devil, rather than the God, in the machine.

Walter made an impression, even on us. Anyone who could talk that big must know something.

The other day we got to telling about this to a friend who had recently spent three weeks in Johns Hopkins Hospital. X-rays, fluoroscopes, cardiograms, metabolisms—all showed nothing. Yet the man was sick. The experts said, "No drastic treatments till we're sure. Go home for a few weeks."

The last morning he was there, the room orderly came in to clean up the room and bid the patient good-bye. He said, "You know, I've worked around here quite a while. When you get home, get yourself a box of liver pills at the drug store. Fix you up in no time. They did me."

Our friend, for some reason, tells this story every time anyone mentions Walter Reuther.

The return of the patriot

THE GREAT word "patriot" is coming back. For a long time it has not been spoken. Nobody used it about anybody.

Your real patriot does not like to be described, pointed out, praised. He does not think of what he is but of what he does.

How can you tell one? Here are a few:

A worker in the shops invented what is now considered the best rifle in the world. He refused to cash in. He gave his invention to his country. His name is Garand.

A young man gave up \$48,000 a year and the presidency of the New York Stock Exchange—that den of evil! He refused to seek a commission. He went in as a buck private. His name is Martin.

Another, the son of the greatest name in modern American military annals also refused to wangle his Senator for a commission and a cushion. His name is Pershing.

A prize-fighter who never sold out his crowd, risks his title and gives his entire earnings to his buddies. His name is Louis.

The manufacturers of gasoline pumps announce they will give to their country all earnings in excess of their average profits for the past five years. Their name is Business Man.

A group of Hoosier farmers have pledged themselves to return all government checks while the war is on.

And you who read may have a candidate in your midst—possibly the

THROUGH THE *Editor's Specs*

boy who delivers the paper at your door and urges you to buy a defense stamp. Or the factory worker who, when men are muttering against anything less than double time, hollers out "Hell, this ain't no tea party. This is war. Let's shake hands all around and get to work."

Watch for the return of the patriot. You may be entertaining one un-awares.

On the eyebrow front

MALES have persuaded themselves that civilization hangs in the balance. Mankind is at the crossroads. Doom impends unless such-and-such is done. But the fairer sex have not permitted war to upset their sense of proportion. They are teaching men how to make war and live at the same time.

In our morning paper we note along with Gandhi's rejection of Sir Stafford Cripps' "postdated check" and the rationing of razor blades, that the actress, Natalie Schafer, offers her deliberate judgment on the importance of keeping "a definite, even eyebrow line."

"Eyebrow tweezing is a fine art," says Miss Schafer. If not done skillfully, it can lead to catastrophe—meaning an irregular curve.

The women are rolling bandages, planting vegetable gardens, conducting first-aid classes and all that, too. But, as long as they find time to think intently about eyebrow lines, the national equilibrium will be preserved.

Washington spring note

THE GARDEN of the Japanese Embassy on Massachusetts Avenue is as lovely as ever. The lawn is neatly cut, the edges of the walks as trim as the back of a miner's neck on Saturday evening. Can't find out who does it but a sign on the door says the Spanish Government is looking after things. Additional trimming of Japanese is now being planned by the United Nations—f.o.b. Tokio.

Bureau bookkeeping

RECOUNTING the success of collector farming under its direction,

Farm Security Administration proceeds on the theory that its reports are more interesting if partially true. Operating according to its peculiar ideas of scientific management, the State Director reports that income of F.S.A. clients increased 74 per cent in Mississippi. Department of Agriculture reports that all farm income for Mississippi increased 80 per cent for the same period. In other words, 25,397 F.S.A. clients in Mississippi, financed by taxpayers' money, had an average income of six per cent less than those who financed themselves, or were privately financed, and operated without bureaucratic supervision.

The net value of the possessions of F.S.A. clients increased from an average of \$443 to \$567 in 1941. In that period, the State Director says, 25,397 clients received loans totaling \$23,929,647. The taxpayer is entitled to whatever comfort he can find in the knowledge that the cost of increasing the average net worth of F.S.A. clients in Mississippi by \$124 was \$942, not including administrative costs.

Third front?

IN SOME quarters they are not content to wage a two-front war against Hitler and against Japan. They want Washington to open a third front against American business men.—The New York Times.

Travel as UNusual

BACK in 1937 we remarked in this department on the amazing fact that federal officials had spent in one year \$76,000,000 for traveling expenses. This sum was greater than the passenger revenue of the largest railroad system in the country, we pointed out.

But that was really small potatoes. We hadn't seen anything yet. The other day Senator McKellar told his colleagues that the federal traveling bill for the fiscal year ending June 30, 1941, was \$222,000 for the legislative department and \$147,000,000 for the executive department.

In just five years—all in peace-time—traveling by the bureau boys doubled.

That's carrying a lot of "education"

ERIE, too, has an "Atlantic Fleet" serving Uncle Sam...



Where rails must end, units of the Erie Railroad's fleet of 241 craft quickly transfer materials for the allied forces to steamships in New York Harbor.



Part of Erie's fleet of powerful tugs that tow heavily laden barges, scows, lighters, and car floats.



One of Erie's busy docks. Shippers give Erie service top ranking on the Atlantic seaboard.

For any transportation information, see the Erie man.

to the citizenry. Now that we're at war, couldn't we, perhaps, be brave and sacrifice some of the non-military part of it? Senator Byrd thinks so.

Suggested prescription: Have the bureau boys drive their personal cars, with no priorities on tires!

Quotable Quotes

ASKED if it were true that the United Mine Workers might secede from the C.I.O., U.M.W. president John Lewis answered: "You don't do that to an organization which owes you \$1,665,000."

SPEAKING in criticism of joint management-labor committees to control production in war plants, President C. E. Wilson of General Motors said:

I think one reason General MacArthur did so well on Bataan was because he was so completely surrounded by enemies that no joint committees could get to him to tell him how to manage the campaign.

"WE HAVE about 12,150 people looking after the Indians. That is one person on the pay roll for every 31 Indians."—Rep. Dirksen, of Illinois.

"THE UNITED Nations are fighting for a world-wide New Deal. . . ."—Vice President Wallace in Omaha speech.

"WE STILL owe \$15,000,000,000 of the last war debt. Up to December 1, 1941, we had paid nearly \$15,000,000,000 in interest on that debt."—Rep. Crowther, of New York.

"Acknowledging yours—"

READERS took to heart our suggestion last month that they write their public "servants" their views.

Some have favored us with copies of their letters and the replies they received.

Congressman Cochran, of Missouri, answered:

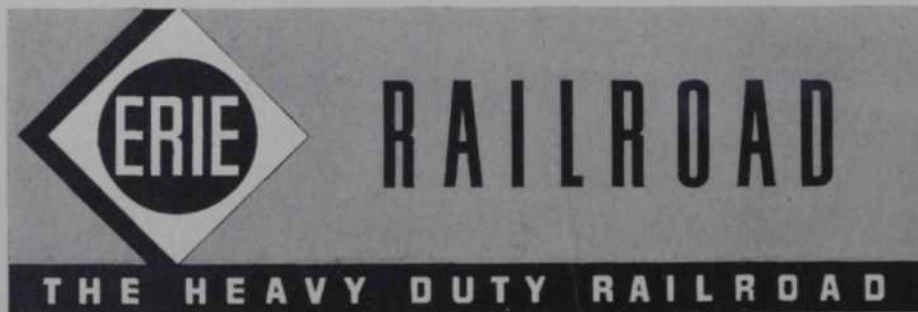
In trying times it is my purpose to stand squarely behind the President. Whatever he recommends in connection with the prosecution of the war will have my support, regardless of who [sic] it affects.

Comment: Is this resignation or abdication? We are reminded that the Reichstag still meets in Berlin.

The constituent who received Congressman Cochran's letter asks for its return, because, he says, "I want to save it for the next election."

Senator Pepper answered a well-reasoned two-page letter from a Florida correspondent with the acme of a beautiful side-step, bug-letter No. 23. He writes:

I appreciate your very interesting letter. I am always glad to hear from you



and have your views. With kindest regards and best wishes, I remain, Very sincerely yours.

Comment: Write your own.

Statesmanship

"I DO not light my candle and place it under a bushel," said the Hon. Lex Green, member of Congress from the second Florida district, when he inserted 4½ pages of self-laudation in the *Congressional Record* for the guidance of the voters in reelecting him for another term. As taxpayers, we shouldn't object too much to paying \$202 for the uncovering of Congressman Green's candle. But we do have a right to object that, in this same lyric, he says:

I favor the elimination of every possible federal expenditure which is not directly needed for the success of the war effort.

On the home front

ANNOUNCING a policy of "work or fight or go to jail," the State's Attorney of Queen Anne County, Md., said that vagrants would be sent to the county's defense headquarters and "signed up for some defense activity such as airplane spotting."

WAR GAINS: California state officials warned students enrolling for work on farms and in food processing establishments that all those who obtained summer employment in the processing plants must become members of unions. Mrs. Roosevelt justified the compulsion on the ground that a student would have to pay only \$6. Summer rates. At the same time, N.L.R.B. directed the publishers of L. A. newspapers to bargain with the Newsboys Local C.I.O.

ONLY 14 of the original 35 women who a month previously had begun a course in agricultural training at the University of Maryland showed up for the final and really serious part of their training.

A GOVERNMENT scrap-iron collector introduced himself to the Governor of Kansas as "Senior commodity specialist of the Automobile Graveyard Section of the Bureau of Industrial Conservation of the War Production Board."

THE MANAGER of a Washington small loan company said that 90 per cent of his loans in the month preceding March 15 were for income tax payments.

ON FEBRUARY 23, the day President Roosevelt, in a nation-wide broadcast, said, "We shall not stop work for a single day," the dues-collecting committee of a C.I.O. union

THAT OLD LIGHTHOUSE HAS TAKEN A POUNDING FOR A CENTURY



WIND and weather don't change much in a century but a city does. Cast iron water and gas mains installed a century ago, under streets then used by horse-drawn vehicles, are now subjected to vibration and traffic-shock from ten-ton trucks. Yet they continue to serve. Cast iron pipe is tough and enduring. Its *known* useful life is at least double the *estimated* life of other pipe used for water, gas or sewer mains. Through avoided costly replacements that would be necessary with shorter-lived pipe, cast iron pipe helps keep down local taxes. It can be salvaged or re-used. It is the only ferrous metal pipe, practicable for underground mains which rust does not destroy.



Unretouched photograph of more-than-century-old cast iron pipe still serving and saving taxes in Detroit.

Pipe bearing
this mark



is cast
iron pipe

Available in diameters from 1¼ to 84 inches.

CAST IRON PIPE

No. 1
Tax Saver

CAST IRON PIPE RESEARCH ASS'N, T. F. WOLFE, RESEARCH ENGINEER, PEOPLES GAS BLDG., CHICAGO

prevented the 300 workers of the Granite City, Ill., unit of American Steel Foundries from entering the plant.

SEVENTY-SIX farmers in Adams County, Ind., met at a school building and signed a pledge not to accept any more A.A.A. payments for growing or non-growing of crops.

THE BOARD of Education at Dubuque, Ia., has voted to revoke a ten-year rent-free lease of a school building granted to the N.Y.A., because of damage to the building since N.Y.A. occupancy. Said the superintendent of buildings and grounds:

Lead fittings in the toilet flush tanks were ripped out, all kinds of hardware, window shades and other school property were stolen, large holes were punched in the walls, every toilet in the building was broken, staircases and railings were torn out.

Dirt Farm talk

HOME READING for farmers from the Yearbook of the Department of Agriculture:

Although the students who have developed the concept of culture have paid more attention to the structure of relationships of traits and patterns than they have to factors which shape a cultural integration, it may be stated that the material aspects of a culture are likely to change before its subjective elements give

way, or, in other words, the traditional values of a culture may persist in folk mentality and learning for a considerable time after its manipulative practices are displaced.

The appropriation for the Department of Agriculture is \$1,232,110,000.

"... You takes your choice"

ON THE EFFECT of the 40-hour week law, its administrator, L. Metcalfe Walling, has executed a neat backfield shift.

In a brief he submitted to the Supreme Court Mr. Walling correctly stated the purpose of the Act. In it he said that "by requiring overtime compensation at 150 per cent of the regular rate, Congress plainly intended to discourage hours of work in excess of the stated maxima." Now, with agitation to abolish his office, the administrator asserts the law does not discourage more work and greater production. He goes so far as to profess to see the hand of Hitler behind the demand for repeal or amendment of the law.

We heard you the first time, Mr. Walling.

Note on nudism

WE HAD always thought of nudists as a group of peculiar men and women who ran around together naked, as

devoid of inhibitions as they were of clothing, and occasionally got arrested for indecent exposure on complaint of neighbors. That was how provincial we were. The controversy between Vice President Wallace and Representative Dies throws new light on the subject. Mr. Wallace is Chairman of the Board of Economic Warfare. Post-war planning is part of its job. Mr. Dies thought there was significance in the selection of one of the leading authorities on nudism to a \$5,600 a year job in Mr. Wallace's organization and the country should know what part nudism is to have in post-war planning.

If we correctly interpret Mr. Wallace's stinging rebuke to Mr. Dies, nudism is as essential to the war effort as C.C.C. or N.Y.A., and the effect of Mr. Dies's disclosure is to "stir up discord among patriotic Americans," and interfere with national unity. Admitting that the country is not united on nudism, Mr. Wallace believes it was a mistake to mention it. That was the position taken by Aubrey Williams concerning N.Y.A., but people kept on talking about it. We still doubt that Mr. Wallace's interest in nudism is to be measured by the extent of his vitriolic denunciation of Mr. Dies. We do not even know what qualifications are necessary to become recognized as chief nudist. As explained by Dr. Maurice Parmelee, nudist expert of the Board of Economic Warfare:

While gymnosophists are not necessarily Socialists or Communists, the colonies furnish excellent opportunities for experiments along Communist lines, some of which may be successful. Customary nudity is impossible under the existing undemocratic, social, economic and political organizations.

"Besides," he wrote, "clothes irritate the skin and cause nervousness."

We doubt if Mr. Dies thought of nudism as one of the social gains, much less considered it essential to winning the war.

Apocryphal but significant

FROM the two-score yarns about tires floating around Washington, we choose this one:

The owner of a gas station in northern Minnesota was digging out from the winter snow to get ready for the spring trade. A car drove up for gas. He tested his old pump and filled the customer's tank. The driver followed him into the station for his change. To make conversation, he said:

"What do you think of MacArthur?"

"Who's he?" came the reply.

"Why, he's our biggest General in the war!"

"What war?"

"Uh, I think I'll take those six tires you have over there, too."

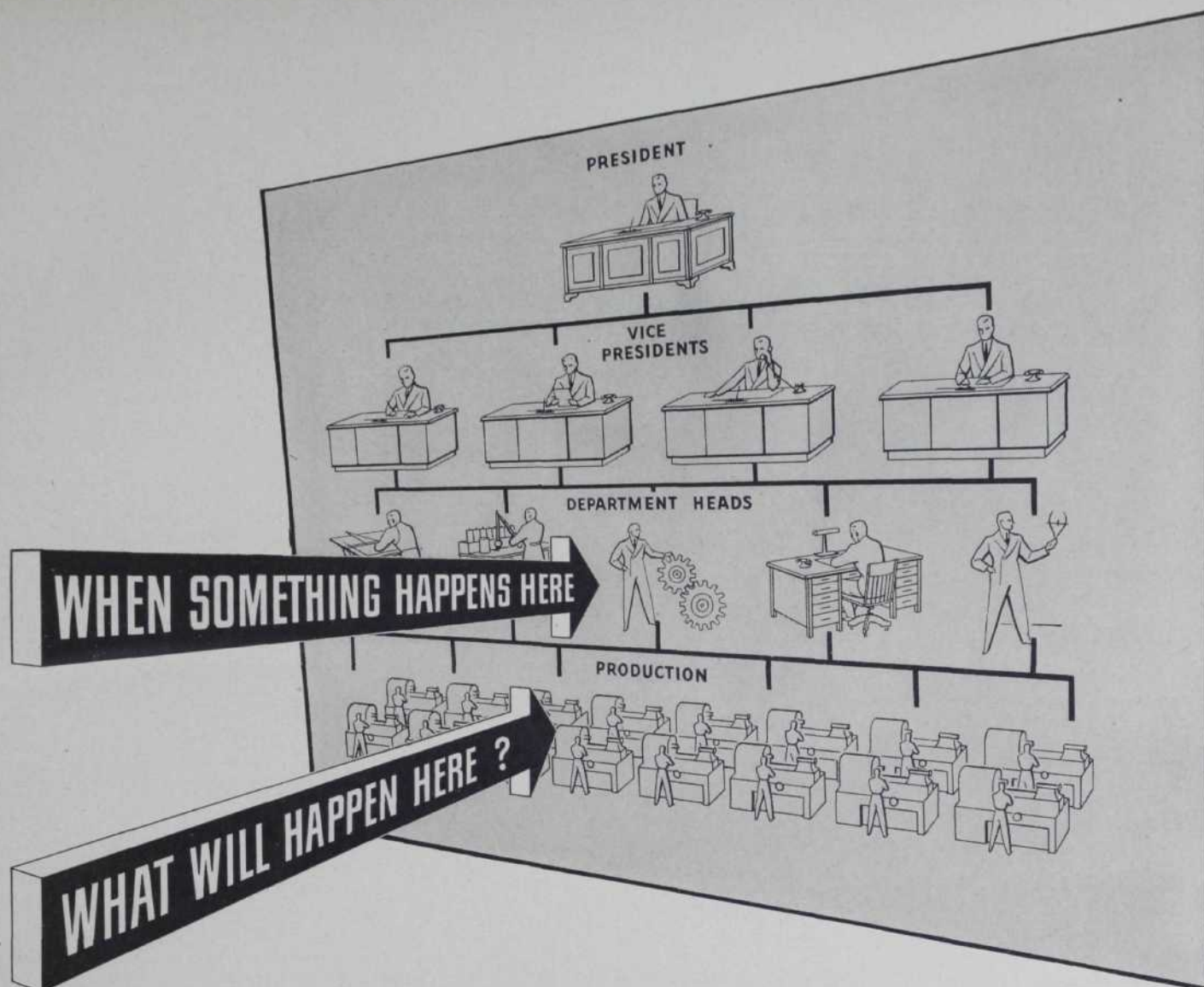
Complete Designing & Drafting Service

NOW AVAILABLE

Our Designing and Drafting Department, long experienced in the creation and detailing of high precision machines, may be able to render you valuable assistance... Concentration of our machine shop on war production enables us to offer a part of our designing facilities for outside work.

Whether you require tool designing or creative development work, we suggest that you get in touch with us for particulars.

PACKAGE MACHINERY COMPANY
SPRINGFIELD, MASSACHUSETTS



A plan for safeguarding production dependent upon key men

KEY men... department heads, engineers, technicians of all sorts... have never been more important than today. Nor more difficult to find!

The death of one or more such men may jeopardize production operations and schedules, unless such men are replaced quickly. Recognizing this, many companies have sought the co-operation of The Northwestern Mutual to provide indemnification for the deaths of such men. One plan which is currently being employed involves the placement of insurance payable to the company on key men in amounts directly related to their annual salaries. Such an amount would finance interim adjustments of personnel, special expenses incurred, plus the increased salaries which might be encountered.

With this type of Northwestern Mutual protection, the emergency acquisition of new men is financed without disturbance to cost and production schedules. The plan has a secondary advantage in that it assures the accumulation of a special surplus, through the cash values of the policies, if the men live.

We invite you to discuss this application of life insurance to today's unusual needs with a Northwestern Mutual agent. Ask him to show you how little net outlay would be required as a result of this Company's low costs. Ask him for suggested plans for the protection of the key men so important to the maintenance of *your* production.



709,000 POLICYHOLDERS

WE ARE

THE NORTHWESTERN MUTUAL
LIFE INSURANCE COMPANY • MILWAUKEE, WIS.

1942 DIVIDENDS to Northwestern Mutual Policyholders will be maintained at the same scale as was paid during 1941.



Old Hands at new Jobs

THERE is a new look of grim satisfaction on the faces of many a veteran Buick worker these days.

There is the look of the seasoned infantryman who, having patiently waited while advance forces engaged in all the early skirmishing, at last gets the marching orders that let him move up front.

You didn't have to tell these old Buick hands why the whole Buick factory hadn't been called to action before.

They knew with the practical experience of men who work with their hands that, even if you had the orders, you can't stamp tanks out of automobile sheet metal, or machine rapid-fire cannon with the same tools and methods that make car assembly lines tick.

They knew that new methods had to be established, tried and tested—that new machines and fixtures had to be designed and built—that even such fine skills as their own had to be refreshed, redirected, reapplied.

They knew that normally this would take years—it took more than a year, didn't it, to "make ready" even a new car model?

So they noted with appreciative approval as new plants went up, new techniques were established and new skills developed in a matter of weeks.

They were assured that their chance would come months ago, when fellow workers in the same plants began to take on first one wartime job, then another.

Their chance did come, and now they're making the most of it.

The job of change-over was handled, and like reservists called up, these quality-wise veterans went into action.

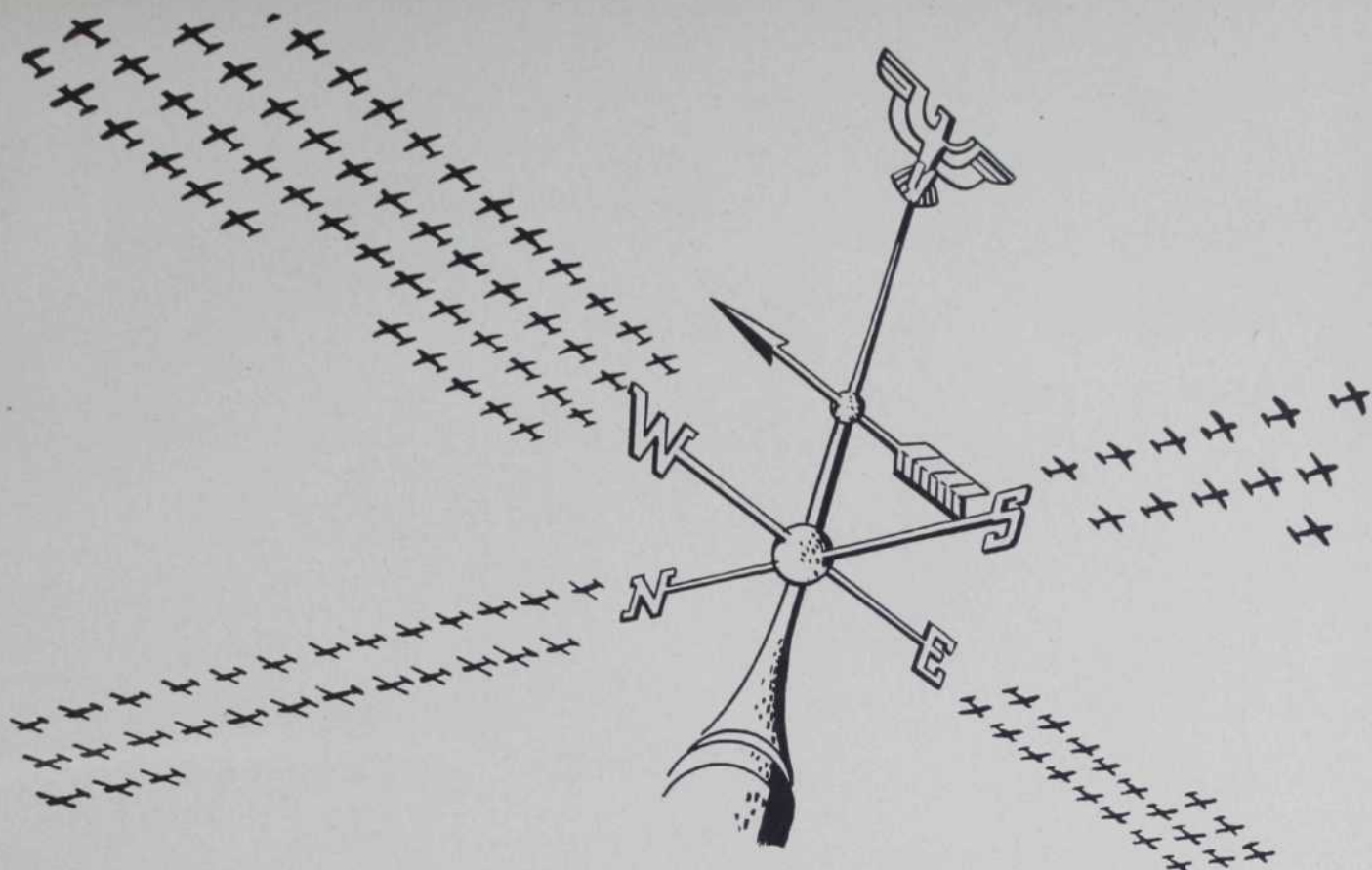
Old hands at the fine, precise, on-the-button work modern war equipment calls for, they relish their opportunity to prove that when Uncle Sam needs better war goods, Buick men can build them.

So there's new buoyance in their stride as these veteran craftsmen march to work.

There's grim purpose in their intentness as they guide their planers and lathes.

For these old hands and Buick are all-out on new jobs to help win total victory.

war goods
**WHEN BETTER AUTOMOBILES ARE BUILT
 BUICK WILL BUILD THEM**



SO MUCH SO SOON

Let not the promise contained in the great new plants we are still building obscure the even more important fact that the tide of aluminum for the war is already at flood stage.

You can't actually count the planes. But you *know* they're winging away in mighty swarms. The Axis knows that, too, and well.

Nor do you see all the other places aluminum is serving in the war. This is a light metal war, in more ways than properly meet the eye of the civilian.

But it is proper, and timely, for Americans to glory in *so much* aluminum, *so soon*. We, ourselves, get a genuine old-fashioned thrill out of keeping ahead of higher and higher objectives.

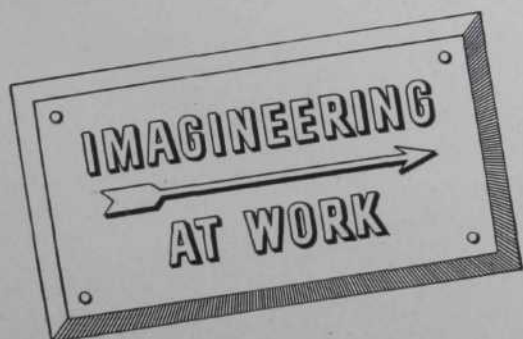
We are doing that, and we intend to keep on doing so.

Nothing in our power is permitted to stand in the way.

Production that doubles and is in the process of doubling again in so short a time takes more than dollars, and man-hours, and know-how. Getting started early, planning audaciously, building and producing furiously: that was and is Imagineering at work for the war.

The same brand of Imagineering, catching the needs of the future in the mind's eye, and pinning them down to earth for future reference, is the great force that will make the new jobs needed when the boys come back. We hope and believe that Alcoa Aluminum will have an equally great part in the good world they are fighting to come back to.

ALUMINUM COMPANY OF AMERICA, 2125 Gulf Building, Pittsburgh, Pennsylvania.



ALCOA ALUMINUM



**TO MAKE YOUR
RUBBER LAST
SEND FOR THIS
FREE MANUAL**

—contains complete data on how to get longer wear from belts, hose and other mechanical rubber goods.



EVERY user of rubber will want this new Goodyear Industrial Rubber Products Conservation manual. It tells you how to prolong the life of your present rubber installations—how to prevent premature failures that cause the needless waste of millions of pounds of rubber every year.

It's authoritative because it is written by the G.T.M.—Goodyear Technical Man—industry's consultant on all major rubber problems. It's complete, filled

with practical suggestions and diagrams covering installation, inspection, maintenance, correction of abuses, and instructions for proper repair. It's essential, even if you hold a priority, *because there's no telling what further restrictions may be put on rubber!*

Remember, improper application and maintenance can reduce the life of rubber products by as much as 50%. This manual will enable you to recognize and correct all such cases now—help you save rubber and save money. To get your free copy mail the coupon below—today.

THE GREATEST NAME

IN RUBBER



DO IT NOW

GOODYEAR, AKRON, OHIO
Dept. NB-1

Kindly send me free copy of "Goodyear Industrial Rubber Products Conservation."

Name _____

Firm name _____

Address _____

City _____

State _____

Nothing from Nothing Comes

EMERSON once said, "What will you have? quoth God. Pay for it and take it."

Every one of us would like to have "victory" in the present conflict. The way to get victory is to pay for it. Lip service and patriotic parades will not defeat our enemies. There must be earnest money. Earnest money is a time-honored expression meaning a pledge, a token of determination. It is a visible sign—in our case, the production resulting from sweaty labor. We who do not go to the front must pledge the monetary result of our labor *today*, and the result of our labor in the *past*, that is, our savings.

When we are asked to buy war bonds and stamps, many of us naturally think, "Why is my little \$18.75 needed? The great Government of the United States can appropriate billions by passing a law. Why not go on the same way?"

But plain common sense tells us that past borrowings were possible because we had established a credit, a reputation for paying up. Horse sense tells us we have been using our reserves, eating up our seed-corn.

A nation, like a family, can use its reserves for a time, but not for long. Credit gone, national bankruptcy comes. A national receiver is always a dictator. History is unanimous on this. We, individually, must help preserve the national credit. That is our part in the war. Not one \$18.75 bond will do it but 40,000,000 purchases of such bonds several times a year will keep us solvent. There can be no such thing as insolvent representative government. The alternative?

Forced loans and forced labor.

—but that is what we are fighting.

Another excuse for not buying war bonds and stamps is that so much money is spent on activities which have nothing to do with war. Here is the answer to that one:

Buy a bond. Then, with good grace, you can make it clear to your representative in Congress

that you expect him to see that your money is spent to win the war.

"I have done this," you can say, "and now, by the Eternal, you must do your part."

No unpatriotic threat in that, just friendly advice to a public servant. But don't write the letter until you have bought your bond.

Money and machines alone can't win. There must be something else. What? The Greeks, 2,000 years ago, had a word for it. "Ethos" they called it. A surging resolution of the people, a resolve that brooks no opposition. That is what is needed behind money and machines. An out-pouring of individual funds arouses that spirit; it becomes contagious, spreads throughout the land. With such a spirit our anxieties die. There comes, instead, a fighting determination to win, to win quickly, completely and, God helping, thus to build a better world in the tradition of free America.

The Bible tells us a story. Jerusalem was in ruins. Her enemies were approaching. The people asked Nehemiah "But, Nehemiah, who will rebuild the walls?" expecting some magic from their Government or from above.

Nehemiah answered "You will rebuild them, you the people!"

Their enemies approaching the gates shouted, "Hah! Their hands will drop the work and it will not be done." But it was done, and the Bible tells us why. "The heart, the spirit of the people was in their work."

Where your treasure is, there will your heart be also.

Help finance America's war effort! *You* are America. It is your war, your personal fight. Buy a bond and show your neighbors—and more important, convince your own self—that your heart is in the job of defending a free way of life.

Meree Thorne

COLONIAL STORES HAUL TWICE AS BIG LOADS ... *With Much Smaller Trucks!*



WHEN YOU CAN deliver twice as big loads with much smaller trucks, you're bound to cut costs. But Colonial Stores' experience with Truck-Trailers turned out to be more than just a better method of hauling.

Their Experience Is Another Example of How Truck-Trailers Are Aiding America At War!

Here, briefly, are the facts: Colonial Stores, Inc., with 533 chain stores and super-markets, is an important factor in food distribution in Virginia, the Carolinas and Georgia.

Once they depended on trucks with a 3½-ton rating that would carry a 10,000 pound payload. In 1936, they began using Fruehauf Trailers, pulled by small, economical trucks. Now they depend exclusively on Truck-Trailers . . . a fleet of more than one hundred . . . and easily haul payloads of 18,000 to 21,000 pounds with 2-ton rated trucks. They have taken advantage of the fact that, like a horse, any truck can pull far more than it is designed to carry.

Here's How Colonial's Truck-Trailers Are Helping America Win the War:

① **Smaller trucks are used**, replacing heavy-duty trucks. And heavy-duty trucks are indispensable for many military operations. Remember, too, that Colonial's *smaller* trucks haul *bigger* loads.

② **Fewer trucks are used**. In their produce department, Colonial Stores use the "shuttle system." One truck handles two or more Trailers . . . while it is pulling one Trailer, the others are being loaded and unloaded. The motor units work almost constantly . . . thus, more tonnage is moved with fewer trucks.

③ **Gasoline conserved**. Obviously, the use of smaller trucks and fewer of them, means less consumption of America's precious supply of gasoline.

A more efficient, economical job of food distribution! A substantial contribution to victory for America! You can credit both of these to Colonial's adoption of Truck-Trailer hauling!

World's Largest Builders of Truck-Trailers

FRUEHAUF TRAILER CO., DETROIT

Sales and Service in Principal Cities

★ ★ ★

The transportation engineers in Fruehauf branches throughout the country aren't stressing Trailer sales these days. Their major job is to help make all available motor transport equipment go as far as possible. They're experienced, practical, conscientious men, and they'll gladly consult with you, without cost, on any hauling problems created by the war crisis. Write to us about it.



RUBBER AND STEEL CONSERVED!

A Truck-and-Trailer combination, with the same load capacity as two trucks, uses 16% less weight of tires than the two trucks.

The same Truck-and-Trailer combination requires 24% less steel and other essential metals than the two trucks . . . A big step toward victory!

FRUEHAUF TRAILERS

"ENGINEERED TRANSPORTATION" REG. U.S. PAT. OFF.

★ TRUCK-TRAILER TRANSPORT IS DOING AN ESSENTIAL JOB FOR ALL AMERICA ★

What's Your Place in the War Effort?

By R. L. VAN BOSKIRK

"GUESS who's in the army now!" Sam Slick used to say as he sauntered toward the chattering sorority sisters.

"Who?" queried the anxious coeds, all curious to know who might have to be scratched off the list for a prospective Junior Prom bid.

"Soldiers," snickered the irrepressible wisecracker.

But, since April 27, day of the "grandpap" registration, Sam has needed a new gag. Now anyone can give him the proper answer:

"Everybody!"

Not "everybody" in uniform, but "everybody" in spirit and "everybody" in action. In the words of Lt. Gen. Somervell:

There aren't any sidelines any more. No man or woman or child is a mere spectator.

On April 27 the Government served notice that every man between 20 and 65 was henceforth under scrutiny—from now on he is on inventory for the war effort.

What will happen to the bond salesman, the accountant, shoe clerk, building contractor, who has a family to support and has successfully weathered the struggle for existence up to this point?

What of the 52 year old photographer in Piqua, Ohio, with two minor children and a moderately successful business? For years he has been taking pictures of babies, weddings, reunions. The army Signal Corps might find him useful but he is old, according to army standards. In his present situation he is of little use to the war economy. Can he replace a younger man in Piqua's meat packing plant, brewery or stone quarry so that the younger man can go to work for General Marshall? Will he move to nearby Akron to work in that city's flourishing war industry or does he have some hidden and long-buried talent that can be usefully applied in a shipyard in some coastal city far from home? Or would he serve his country best by remaining at home, striving to keep his business going, paying his taxes and helping to hold intact the remnant of civil life still remaining?

There are thousands of Piqua photographers in this nation—older men who want to do their part in squelching Tojo and Hitler. The biggest question mark in their lives today is, "How can I help?" But when they receive a government questionnaire asking them to check which of some 200 occupations they can perform, they are going to be startled.

At first glance, a tax expert, for example, may ask: "What the Sam Hill? Are they going to ask me to put

Father is a newspaper man. Will he join the army or could he become a personnel expert in a production plant? Or will he continue his peace-time job?



nuts on bolts in an airplane factory?"

The answer to that is, "No." That should comfort thousands of well-meaning business men with dependent families who are just as interested in winning the war as is General MacArthur but who fear they may end up as square pegs in round holes. They have no objection to being listed in the Government's manpower inventory. They understand that it is the Government's duty to know its manpower potential just as it must know how much tin or rubber is available. The essence of their questioning is:

How will the Government use its right to allocate manpower? Will it allocate my labor with the sole intent of winning the war quickly?

Will There Be Conscription of Labor?

THE indicated answer at this moment is that any authority given to allocate labor would be used cautiously. The War Department, War Production Board, Selective Service Board, and U. S. Employment Service are all alert to the possibilities of chaos and confusion in any sudden mass transformation from civilian to war industry. In fact, the officials have been criticized for slow action. Impatient critics seem to have no idea of the tremendous factors involved in changing this nation over from a blue serge suit to a coat of armor. Such a thing as labor conscription exists largely in the minds of politicians at the present time. Officials shy away from it, but there is always a possibility that Congress will give birth to a Labor Conscription Law. Leon Henderson wasn't eager to touch retail prices, but he is gradually stepping farther into the field because it seems necessary to enforce price fixing. The same thing could happen to labor conscription.

If lack of workers slows production the old battle cry, "Work or Fight," will be revived. The danger of a shortage increases as the war lengthens but, for this year at least, there is plenty of labor if it can be put in the right places.

Right now the use of men over 45 is contemplated on a strictly voluntary basis. The Piqua photographer and the tax expert—if he is over 45—need have no fear that the Government is going to make ship's carpenters or machine

tenders out of them. If other factors, such as loss of business or shortage of materials, causes them to seek government employment, then an attempt would be made to train them for jobs where they would be most useful. Both might take training to become inspectors. The war effort needs them sorely for everything from measuring a part with a gauge to examining metal parts through X-ray machines. Training courses in universities and schools have been set up for this purpose. A recent class in Pittsburgh graduated 80 former auto salesmen as inspectors. This is one division of war production where previous experience is not particularly important.

But, if Mr. Photographer or Mr. Tax Expert has a hidden talent that is useful in a metal working industry and so indicates on his questionnaire, the day is not far off when a U. S. Employment representative will offer him a job in a defense plant. He won't be forced to accept, but the flag will be waved.



A retired grocer returns to replace his son who is managing an army store in Camp Lewis

A study of the questionnaire which will go out to men from 20 to 65 (they will have ten days to fill it out and return) gives an obvious answer to what the Government is after. Primarily the search is for men who have a trade or profession that can be used directly

in war production or in the war effort.

In the list of professions, nine types of engineers are designated together with chemists, metallurgists, personnel managers. Their possible use for war work is obvious—if the war lasts five years, the Government may need every one it can find. Also listed are such professions as historian, economist, horticulturist, social worker and sociologist.

It is hard to believe that all of this group would ever be needed in the war effort—a few, yes, but not all. Completely missing are such professions as editor and publisher unless they can be classed as "administrative officials." But such professions as publicist, reporter, advertising man, sales managers, bankers, insurance underwriters, wholesalers or retailers are not mentioned anywhere.

What then will happen to men in these omitted groups? A possible answer for some of them may be found in the list of trades. There are 190 of these and the recipient will be asked to check any at which he has ever worked. By far the greater number in this list are metal trades or such things as cabinet makers, lens grinders, linemen, dredgemen. Few bankers or insurance underwriters have ever had that kind of experience. Thousands of men are going to feel rather futile when they start checking their questionnaire. It will be obvious that they are not included. Then they will start wondering just what will become of them, particularly if they are over 45 and not eligible for the armed forces.

Army officials hasten to point out that there is no need to worry. They think it would be folly to attempt to make a machine tender out of a 52-year-old banker who can't drive a nail straight.

The Reason for Inventory of Men Over 45

THE real purpose of the questionnaire for men over 45 is to find men who can be more useful to the war effort in production plants than where they now are. The officials believe that thousands

of machinists who left their jobs during the 1930's are now following other pursuits. Some of them are now janitors, cab drivers, filling station operators, tourist camp employees. It is hoped that they can be brought back into their old field or transferred to some



LA TOUR

Can you imagine yourself in these surroundings? Shipyard workers are needed by thousands—can you substitute at home for a man who would make a good ship welder?

similar trade and put to work on guns, ships and armament.

A second hope is to get some more management and production brains into the war effort. The biggest bottleneck in war production today is management—production men who can get things done. Experienced men to manage new and enlarged factories are lacking. The questionnaires are expected to unearth hundreds of retired production managers. They will be contacted immediately and the War Production Board will put them in touch with manufacturers where their ability can be used. There are also openings for men with personnel and procurement experience.

But suppose the worst happens. Suppose a labor conscript law is passed and the Government has this inventory of every man's experience. Even then it hardly seems likely that the Government will attempt to put square pegs in round holes. England has such a law, but in only 50 cases has it been necessary to use compulsion. After all, someone has to carry on the ordinary civilian activities. Millions of persons are needed for that. At the end of this year, more people will be engaged in non-defense activities than in war production. Figures are 17,500,000 for defense, 26,500,000 for non-defense, 8,000,000 for agriculture. Of course the proportion of defense workers will probably increase each year the war lasts—rapidly if invasion threatens—

but the changes in most civilians' status will be forced by other circumstances than a conscript labor law.

What is an Essential Industry?

A MAN'S future as a war worker or a civilian worker may depend entirely on whether or not he is in an essential industry or one essential to the war effort. The Selective Service Board is just getting around to the job of determining essential industries. So far the decision has been left largely to local boards with general instructions from Washington headquarters as to what constitutes a necessary man in an essential industry.

A recent bulletin states:

Now that we are at war the phrase, "national health, safety, or interest," no longer includes mere convenience and comfort. Activities essential to the national health, safety or interest are now limited to those activities other than war production, which support the war effort. Activities supporting the war effort include those activities which provide food, clothing, shelter, health, safety, and other requisites of life.

To warrant deferment as a necessary man, a registrant must be engaged in one of those activities which the Director of Selective Service has certi-

fied as actually necessary to war production or essential to the war effort. In the absence of certification, Selective Service System agencies will consider the necessary or essential character of such activities without the assistance of such certification. In other words, the local boards will use their own best judgment.

So far the only certifications have been for pilots in the Air Corps Training Command (civilians helping to train student fliers) who will eventually end up in the Army anyhow; commissioned officers of the Public Health Service and marine pilots.

Before this is read many more will be named. They will be classified under two headings, "Essential to War Production" and "Essential to the War Effort." There is little distinction between them now when it comes to deferment of employees, but later there might be. Railroad activity, for example, may be curtailed under pressing circumstances, but at the same time the need to make more steel for guns would be more pressing than ever. In that case a railroader would be called, but the steel man would be left on the job.

Another example might be the truck driver for a transit company in a defense area, who, in an emergency, would be called before the truck driver delivering torpedoes from a manufacturer to a naval station.

But remember this: *there is no blanket deferment in any industry—*

there are comparatively few men in any business who will get permanent deferment on occupational grounds.

Here is a list of industries which will probably be among those considered essential.

Essential to War Production and War Effort

Ship construction.
Intercoastal, coastal and off-shore shipping.
Shipping on Great Lakes.
Aluminum manufacture and fabrication.
Steel manufacture.
Railroads.
Inland waterways.
Air transport.
Bus, truck, city and inter-city transportation.
Manufacture of armaments; machine guns, large guns, parts, etc.
Coal production.
Agriculture.
Food processing.
Pipe line distribution.
Petroleum production.
Communications.
Airplanes.
Tanks.
Munitions—everything from powder, ammunition, hand grenades, etc., to markers dropped at sea for identification.
Caterpillar treads.
Public utilities.
Chemicals used in war and agriculture.
Metal industries in war work.
Rubber.

Electrical supplies for war materials.
Submarine detectors.
Aviation and automotive instruments.
Optical supplies for war use.
Marine engines for the navy.
Tools for war industries.

This list is *not* official. It is given here only to indicate the type of business which is being considered. There will be well over 100—nobody knows how many, but common sense tells you that every product needed for warfare is essential and that such things as food and transportation are essential to the war effort. A local board in Mobile is much more likely to know the "essential" quality of a local business than the headquarters office in Washington.

There will be many borderline cases and, in some industries, certain factories may be essential, although the whole industry is not. A textile factory whose production was *predominantly* devoted to war materials would be considered essential. Paper, too, is a military necessity, although not in the same degree as machine guns. Furthermore, several chemical by-products of paper mills are essential to the armament industry. Thus it would seem that mills working on war orders might continue that part of their operation

at full blast throughout the war, while other plants in the same industries would curtail or shut down if the shortage of manpower or raw materials became acute. Conversion to complete war production is, of course, always a possibility to prevent shutdown.

Non-Essential Industries

NOTE that such enterprises as newspapers and magazines, radio, movies, chambers of commerce and trade associations are not listed as war essentials and probably never will be. That doesn't mean that they will all go out of business, merely that men working for them will not be deferred for occupational reasons. Moreover, employees not eligible for military service, but who have other capabilities that war production plants might use, will no doubt be asked to change. The movies, for example, have skilled technicians and machinists who, although essential to the industry are equally important in war production plants. The latter place is where most of them will probably end up. Linotype machinists and some pressmen in newspaper plants have unusual mechanical



U. S. ARMY SIGNAL CORPS

Getting a commission the hard way is most satisfactory to a man's ego, but it takes proven qualities of leadership and months of rigorous training under actual field conditions

ability—are they more valuable on a newspaper or in a war production plant? A chamber of commerce certainly performs an invaluable civic function, but staff men capable of performing war work will be asked to give up their work. Women or others incapable of working in war plants can be trained to take their places.

But officials of Selective Service state definitely that there is no intention of destroying the means of communication between the Government and its citizens or between themselves. Germany and Japan still have newspapers. It still takes people to operate them even though they are told what to say. Of course, when radios are needed for military communications or would give away location to hostile airplanes, they will go out of use temporarily.

The Selective Service Board bases its theory of selection on the point of need. Its members think they have a flexible system that will work out more satisfactorily than the Canadian system. Their definition of a necessary man is, roughly, a man so skilled in either a trade or management, that it would take months or years to train a substitute. He must be working in an industry essential to the war effort. No government job or no war production job automatically gives a man occupational deferment unless he is absolutely irreplaceable.

Men will be called to the colors according to the need of the armed forces regardless of where they work, but with due regard to the degree of dependency and classification as necessary men in critical industries.

The Canadian system is more rigid. We are repeating it here because it gives a more definite idea of non-essential industries, but no reader should take it for granted that a non-essential industry in Canada is necessarily the same in this country.

Prime Minister King can now prohibit anyone engaged in agriculture from entering other employment and, for the Government, he has taken an option on services of all technically trained persons not in war industries. He has classified non-essential industries and prohibited any persons between 17 and 45 from entering them except upon special permission. The Canadian non-essentials are:

1. Bookkeepers, cashiers, stenographers, typists, clerks, messengers, salesmen and taxi drivers.

2. Any occupation in wholesale or retail trade, advertising and real estate.

3. Any occupation in or directly associated with entertainment, recreation or personal service, including theatres, motion pictures, bowling alleys, barbering and hairdressing, cleaning and pressing, funeral service and shoe shining.



Women workers are proving adept at many precision jobs. Employers are urged to train more of them to replace men

4. Any occupation in the manufacture of biscuits, confectionery, cocoa, bread and bakery products, aerated and mineral waters and other beverages, liquors, wine, beer, rubber products, tobacco, cigars, cigarettes, leather and fur products, textile products, furniture and upholstery, photography, printing, publishing and engraving, radios, refrigerators, washing machines and vacuum cleaners, jewelry and watchmaking, pottery and china, soaps, toilet preparations and articles, mattresses, musical instruments, barber and beauty shop equipment, cameras and films, sporting goods, games, toys and novelties.

What Happens to Men in Non-Essential Industries

THIS gives an idea of what a list of non-essentials will look like if we ever have one. It could be much longer. Take the tourist trade, for example. Even if not declared non-essential, where is its business coming from? What happens to a man in that industry who is not eligible for the

army? That answer may depend entirely on how he answers his questionnaire. If he lives in Florida or Maine and indicates on the questionnaire that he has mechanical ability which can be turned to account in a shipyard, an employee of the U. S. Employment Service will offer him a job in a shipyard. Suppose he doesn't belong to a union and it's a union shop? As things stand today, he'll join the union or there won't be a job for him there.

What about executives and salesmen who promote tours? They have no mechanical ability, we'll say. They become desperate for a job and go to the U. S. Employment Agency. They will be offered training courses perhaps as inspectors or personnel men. After finishing the course the inspectors will be offered jobs in defense plants—the Employment Agency might even hire the personnel men to interview applicants for jobs or send them to defense plants where hiring new workers has become a major activity. Others, particularly salesmen, may be hired as expeditors to act as liaison men between sub-contractors and prime-contractors to help speed-up production.

What happens to employers—man-



New York City manpower. Big problem is how to get it into war production, for New York itself has comparatively little munitions industry

agers of comparatively small businesses such as mercantile establishments, insurance agencies, banks, lumber yards? Except where defense activity creates an unusual demand, they will be short on help and materials for sale. Employees who are laid off may qualify for defense jobs. But the employers themselves, if they are older men, will find little opportunity to contribute to the war effort except by paying taxes, buying war bonds and exhibiting *esprit de corps*.

Business men in defense areas will have an entirely different problem. They will have plenty of business, but materials will be scarce and help lacking. They will be constantly harassed by turnover of employees as they flock to defense plants. Women workers, housewives who haven't worked for years and young boys and girls, will attempt to fill in as substitutes, but they, too, or at least a good percentage

will later join the ever-increasing march to defense plants.

Small towns will be particularly affected. In many of them, only one or two doctors may be left. If the town has two undertakers and one is eligible for military service, off he will go, leaving the business for only one. Local boards are not expected to strip a town completely of specialist services, but they will cut to the bone. It is not improbable that most small towns will be completely denuded of their younger persons, because, if the army doesn't get them, the promise of high wages in a defense plant will draw them to the cities.

Moving Labor from One Area to Another

TRY as they will, government officials have found no satisfactory way to

avoid congestion in defense centers. Arms and ordnance plants need a good potential labor supply and are seldom located in towns of less than 100,000. When the plant reaches capacity production, it seems that there is never enough labor. Detroit will need 150,000 more workers when production there reaches capacity. Some cities have labor now, but will run short in a few months. New York City today has 400,000 unemployed, but there is trouble ahead for anyone who tries to move inhabitants from a community where they think the world is bounded on the east by Brooklyn and on the west by the Hudson River. There will be much more unemployment in New York when the thousands of white collar workers in those skyscrapers begin to feel the impact of "non-essential" industries. The city's industry is of a type not easily converted to war production and the problem of how to get surplus New York labor engaged in war production has not yet been solved.

The business of moving labor into war production areas is one of the first headaches that the Manpower Board will face. Short moves will be attempted where possible. There is no reason why metal workers in a curtailed stove plant in Ashtabula, Ohio, should have to be moved any farther than Toledo or Cleveland. But what about the skilled machinists working in a fur trap manufacturing plant in Minnesota? Must they go to Seattle? If they were sent east to defense areas the distance would be less, but Seattle needs their skill and it is difficult to pick up any surplus skilled men in other parts of the Northwest.

Supply Just As Important As Fighting

IN New Zealand one man out of every four is in the army. If that ratio applied in this country, we would have more than 10,000,000 in the armed forces.

In Australia all single men between 18 and 45 and all married men between 18 and 35 were directed to report for military duty. All civilian labor, skilled and unskilled, has been drafted for compulsory service under Government direction, but at army pay. Such things as construction will be performed under military supervision. Women are still on a volunteer basis, but may not change jobs without permission.

That is the sort of thing which happens when invasion is at the door. If Alaska should fall and Nipponese bombers start working on the Pacific Coast, older men would certainly have a more active part in our actual physical defense. If not asked to bleed for their country, they would assuredly be asked to perspire. Every reader of Civil War history knows what hap-

pened in the South when every ounce of available manpower was mobilized in an effort to stave off the Grant and Sherman pincers. But remember, that was in the third and fourth years of the war. At that stage there was scarcely any civilian occupation by which a man could earn his living.

Today our problem differs from Australia's or New Zealand's. The United States of North America is now the chief arsenal for democracy. It started the job from scratch. In 1939, we had only some 20,000 workers in munitions plants—mostly in government arsenals. By the end of this year more than 3,000,000 will be working on munitions and ordnance alone. Manpower must be carefully dealt out between military and production needs. It would be wasteful to put more men in the army than are actually needed when they could be used in production plants. It would be folly to build an army bigger than we could supply.

When soldiers and sailors are dying for lack of supplies and reinforcements, it seems that we are moving pitifully slow at home, but that is a natural result of a strange paradox. A democracy itself moves like a snail, but the citizens of a democracy can move like lightning when their welfare is affected. Thus today, you see the Government still in slow motion from the very weight of its responsibilities, but many production plants are moving at a speed no man would have believed possible a few months ago. It looks now as though industry may even exceed the tremendous quotas asked by President Roosevelt after Pearl Harbor.

The same is true of the Army and Navy. They are growing faster than we think. A little World War I history might be pertinent at this point. That war was declared in April, 1917. There were no cantonments and no selective service act before the declaration. There were less than 200,000 regular soldiers and about 120,000 National Guardsmen with from six to nine months' Mexican border service. In September of that year the first consignment of about 500,000 drafted men moved into camp. That was slow movement. Organization was just getting started. But, between September, 1917, and November, 1918, almost 3,500,000 more soldiers were put into camps and some 2,000,000 were moved overseas.

For this war, the organization was farther along when hostilities were declared but the need is greater. You can count on faster movement. Reorganization of our whole economy is a slow, tedious and often bunglesome process, but, when it starts to click, men and machines will roll off the lines in a stream that will make Herr Schickelgruber's eyes bulge.

This little sermonette is for the benefit of the older man who thinks he

is being left out of the war effort or that his talents will be neglected. There can be no guarantee that every square peg will be put in a square hole. The job of putting 25,000,000 persons in exactly the right place in one year is too big for that, but there will be reasonable effort to accomplish that general purpose. Some talents are simply unadaptable for the war effort. A young sales manager may find no other avocation open to him except toting a rifle or driving a "jeep." But, old and young business men who think they have special talents can apply for Commissions in the Army or Navy.

Getting a Commission in the Army

SAD to relate, the best way to get action is to know an army officer who has a particular job that the applicant

If you are over 45 the chance of getting into the army as a combat officer is nil although there are civilian jobs with the armed forces that will get you within range of gunfire and bombs. If you are under 45 and have fighting blood in your veins, there is a good chance that you can get a line officer's commission commensurate with your age. The First World War combat divisions included many captains and majors who were business men, doctors, lawyers, engineers and others who might just as well have taken commissions in specialist branches, but who preferred "Going Over the Top." They obtained commissions in 90 day camps.

Today there is no direct counterpart of the 90 day camp, but the Army has a keen eye open for any good combat officer material that can be found in civilian ranks. Seventy-five thousand new ones are wanted this year. If a civilian with educational and managerial qualifications has qualities of



During the first World War women drove busses like this. Today they are substituting for young men on light delivery trucks

can fill. The stereotyped way is to go to the Army corps area in which you live or write directly to the personnel placement section, adjutant general's office, temporary building "M," 26th and C Streets, Washington, D. C. Military service in World War I is of no particular influence now unless two men of the same technical experience apply for the same job. In that case, the man with military experience will have first call.

leadership, he is welcome to try for a commission. If he has been deferred by the local board for dependents, he can enlist and apply for a chance to earn a commission. If he fails to be recommended for an officer candidate school at the end of four months of service, he may be transferred back to the enlisted reserve and his local board will put him back in Class 3A.

If he is recommended for an officers' school and completes it satisfactorily,

he will be commissioned a second lieutenant. Today a second lieutenant is not assigned to active duty with a combat unit after the age of 30, but special provision has been made for men over 29 years who successfully complete the course. Immediately on being commissioned, they may be given advanced training, after which they may be promoted to higher grades.

The Navy, too, is still commissioning men from civil life if they are between 19 and 50. Seagoing experience is desirable for deck officers but not necessary for shore assignments. Other commissions in the Navy are given to engineers if they have enough experience; in aviation if the applicants have had aeronautical or organizational work; in communications if there is an industrial background; in ordnance if there is administrative, engineering or technical experience with manufacturing companies and supply departments. This last class of specialist officers will go in various branches of supply corps work—purchase, finance, accounting, transportation, foodstuffs, textiles, fuel. Experience in business is the basis for appointment.

The Army is passing out commissions other than those for line officers in great profusion but it is almost necessary to find a particular spot where the applicant may be needed. Primarily,

men with procurement and production experience are wanted. Transportation and communications men are needed. Mechanical and chemical engineers are the right kind of material for munitions plant management personnel. Finance men might find commissions in the paymaster's department and the quartermaster section can use storekeepers and buyers.

There are a great many openings for administrators and some lawyers, but there is also a great supply. The Personnel Placement Section is a good example of how they are used—there lawyers, office managers, insurance men and an ex-Congressman are working in this one comparatively small department.

There is also a demand for men with rare and unusual capabilities. A ballistics expert, a man familiar with complicated business machines and amateur radio operators are invaluable in the Army. A cryptanalyst, a man who trains pigeons to carry messages and the man who trains falcons to catch the enemy's pigeons are some of the odd requirements that might help to obtain a commission.

Army Service for Civilians

ONE more possible way to get into the army with an officer's pay, but

without an officer's commission, is in Dwight Davis' special service corps. Appropriations for the corps have been held up in Congress, but the idea will probably go through in a form similar to that now in mind. The special service corps is designed particularly for older men who have technical and administrative talent that the Army can use. They will wear slightly different uniforms and will have the same titles and insignia as regular army officers, but a special service corps colonel will have no authority over even a regular army shave-tail. Enlisted men will not be required to salute him. There are no 55-year-old second lieutenants in the regular army, but there may be some in the special service corps.

There will be no age restrictions and physical requirements will be much lower than in the regular army, but men will be graded according to their physical condition. Thus a 58-year-old merchant in good shape might get an assignment in Australia or Africa helping to supply front line troops—another 58-year-old merchant in poor physical condition might be assigned to a cantonment in this country where he could help operate the army stores, hundreds of which are being organized in army posts all over the nation.

Even physically incapacitated men may be used like the man with two artificial legs who applied for a job. He has been eminently successful in civil life and now wants to help rehabilitate returned soldiers who may have lost their limbs. Another enthusiastic patriot with a twisted body wanted to offer himself as the guiding mechanism on a huge torpedo aimed at an enemy battleship.

Appointments will be made only to meet specific needs or vacancies in accordance with requests by various arms and services. Specialists will only be assigned in the particular capacity for which they are best fitted and the biggest demand is for strictly technical men. Applications may be made to Dwight Davis, Army Specialist Corps, Temporary Building "M", Washington, D. C. But don't expect an immediate answer. The application will be catalogued and filed until there is a call for men with your qualifications. It may be months, or a year, or never, before an answer is received. It all depends upon the Army's particular needs.

The status of men between 40 and 45
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Small towns might be limited to one barber, one doctor, one undertaker, if the others can be made useful in army or war production

"Plans" May Deny Us Food

By LAWRENCE SULLIVAN

JEFFERSON said: "if we were told by Washington what to sow and when to reap, we should soon want for bread." Today's food muddle may prove him right

NO PEOPLE in all the world have been so well fed as Americans. Theirs has been a land of plenty—above all, plenty of food.

Like air, abundant crops year after year have been taken for granted. But the world's most bountiful table depends on more than abundant crops. It depends on a transportation scheme which puts fresh meat into our remotest towns on refrigerator car schedule; on processing that makes quick frozen fruits and vegetables available from coast to coast the year 'round; on packaging, refrigeration, storage, marketing, and above all, price.

Through the years private enterprise has functioned so skillfully that a balanced and varied ration is accepted as natural and commonplace; that, Winston Churchill made nation-wide headlines when, on looking at his White House breakfast of two poached eggs on toast, he remarked:

"That's my week's egg ration in England."

Smugly we accepted Secretary Wickard's recent statement: "Food will win the war and write the peace" because it implied that America's food made victory certain.

But the time is here to add a qualification in these words:

Bad management by government of



The world-wide cry: "Give us this day. . . ."

America's food resources can prolong the war and spoil the peace.

Today 23 different government agencies are exercising conflicting authority in the field of food supply. The administrative confusion and regulatory tangles flowing from this many-sided management already have curbed—rather than stimulated—the movement of many foods to market. Uncertainty in price policies and rationing programs within the federal agencies now have some vital segments of the food industry in a state approaching chaos.

Confusion for the food industry

FOR several months, packers, canners, dairy processors, bakers, confectioners, sugar refiners and cocoa importers have been besieging Washington for an overall clarification of the war-time food program and a unification of the emergency administrative machinery. Top-flight food executives, often forced to spend a week or ten days every month in Washington, insist that they could

be of more service in their own plants.

Since Pearl Harbor, the food industries have spent millions of dollars in travel expenses—merely to keep abreast of what Washington is planning next.

"How much tin?" asks the canner.

"How much sugar?" says the baker.

"Will I get tires?" the dairyman cries.

"May I wrap this in cellophane—if not, can I get paper?"

"At what price will the Government sell wheat?" the miller asks.

"Will a pooling arrangement with competitors on urgent army orders bring down an antitrust suit on my head?" queries the meat packer.

"There is no price ceiling on fresh tomatoes," says the canner, "but, before my 1942 pack gets to market, there may be a ceiling on canned goods. Will the ceiling pay for my tomatoes and the canning, or throw me into bankruptcy?"

These questions epitomize fairly the difficulties under which every branch of the food industry is operating today. The Department of Agriculture fixes production goals, but W.P.B. allocates the tin, sugar, rubber, machinery, chemicals, wrappers. Basic farm prices

are fluid—mostly on the upside—but O.P.A. watches the retail barometer, ready to proclaim a new ceiling overnight—a situation which often discourages normal operating inventories in both processing and distribution.

With raw materials, wages and taxes moving higher every month, government radio and pamphlet projects horsewhip the processing and distribution branches of the food industry to keep retail prices at prewar levels!

One-sided price controls

ON APRIL 7, Philip Murray, C.I.O. President, called upon Price Administrator Henderson by public manifesto "to institute immediately an effective and widespread system of price controls upon the goods that people need in order to live. . . . It is your responsibility to stop these price rises."

But how long can bread sell at ten cents a loaf when flour has moved from \$4.50 to \$6.60 a barrel, lard from six cents to 12 cents a pound, with all other ingredients advancing proportionately? The same applies to every item of food.

Nor has Mr. Wickard undertaken to supply either men or machinery commensurate with the production goals officially proclaimed. Labor supply, ap-

parently, is a problem for Perkins, McNutt, or Hillman, and farm machinery is Don Nelson's responsibility. The farmer falls between them all—and with him, perhaps, the entire food industry, lend-lease, the Army and Navy, and several A.E.F.'s.

Would it be possible, then, to have so much government management of food in so many different directions that this great land of plenty might find itself ultimately facing a serious inadequacy of nutrition? History recalls the grave dictum of Thomas Jefferson:

Were we told by Washington what to sow and when to reap, we should soon want for bread.

Nowhere has the lack of bureaucratic coordination been more marked than in the problem of farm labor. Between military drafts and the lure of boom wages in the war industries, rural America has been practically stripped of her farm workers. Yet W.P.A., N.Y.A. and C.C.C. press forward with approximately 1,000,000 still on their rolls. So urgent is the need for manpower to carry on the daily routine of feeding, milking, planting, cultivation, and fertilizing, that some states are considering assigning prison labor to the fields.

Chairman Hampton P. Fulmer, of South Carolina, recently presented the

problem to the House Agricultural Committee, urging a presidential executive order forbidding W.P.A. employment to any man physically capable of farm work. He said:

At this time the W.P.A. should operate only, if it should operate at all, to take care of those who would not be able to work on the farm. On my way to South Carolina, I found numerous squads scraping the banks along the roadside, tearing up and repairing roads, many of them standing up protecting the handles of their shovels, while on the farms they are unable to get labor to carry on.

The farmers applauded Fulmer's suggestion.

"We are willing to sweat blood to build battleships, tanks, planes, and implements of war," one rural constituent said, "but we are not willing to pay for all that and at the same time pay for a multitude of miscellaneous New Deal pets, such as the W.P.A."

Unions and rotting crops

WHEN the colleges and high schools of California perfected a mobilization program to direct young men and women to farm work for the cropping season, C.I.O. intervened with a demand that all such temporary labor must first qualify for union membership. Who would pay the initiation fees? The Federal Security Administration referred the matter to the Labor Department. Will the answer be given before tons of grapes, apricots, pears, and melons rot in the fields?

Here are a few more of the principal official confusions tormenting the food industries today:

One: Industrial sugar rationing is predicated upon tonnage allocations to each refiner. W.P.B. made the allocations, basing them upon Department of Agriculture quotas assigned the several producing areas. But nobody has given assurance that these quotas and allocations actually will be supplied! That involves a question of ships, and the War Shipping Administration has not indicated how much tonnage will be available for offshore sugar. The sugar price ceiling fixed by O.P.A. was based upon a freight rate of 34 cents per hundredweight on Cuban raw to New York. On April 6, the War Shipping Administration announced an increase of 78 per cent on this rate, but there was no simultaneous increase in the refined ceiling price.

In the case of beet sugar, swiftly
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No people in the world have been so well fed as Americans. To them, the idea of a food shortage is strange



Legal Lesson by a Pastry Cook

By BEATRICE SCHAPPER

THE personnel director was baffled. Only three months before, the assistant pastry chef's original confections had been the pride of the management and the joy of the patrons. Of late, his sugar castles toppled and no new designs spun gayly from his pastry tube. He confessed he'd "lost his knack," he wished he could explain why, and agreed the hotel was right in firing him. He'd never be any good as a confectioner anyway.

At the same time, the personnel director was puzzled about the junior bookkeeper whose agility with figures had bogged down and whose acute comprehension of hotel finances was blunted by confusion. Besides, his errors in addition had proved costly. He, too, had wrung out of himself admission of failure and self-contempt. Why had he ever dreamed of becoming a treasurer!

The personnel director decided on an unofficial, man-to-man talk with each



"She came for a visit six months ago, now I can't get rid of her. She says I have to support her"

HOW the story of a militant sister-in-law led a personnel manager to establish a legal clinic for employees thus demonstrating the axiom "give a man justice and you have gone far toward making him a useful citizen"



His aim was to lure employees into signing tricky agreements

of these men, outside of business hours.

The artist-in-icing, responding to the warm personal interest, moaned,

It's my sister-in-law. She came for a visit six months ago. Visit! I can't get rid of her, she says I have to support her. She runs us all. Behind my back she says I'm not earning enough, never will, and that my wife can do better by leaving me. My wife's threatening a separation!

Worry removed: work improved

HE hadn't known that he was not legally responsible for that sister-in-law's support. Fortified with the knowledge, he went home and issued a brief but pointed ultimatum. The sister-in-law lost no time in leaving. Forthwith, his own house in order, he began again to create fairy-castle cakes.

A similar Dutch-uncle talk with the fledgling treasurer evoked the story of a more-ambitious-than-sensible wife who had failed to meet payments on a \$300 mail-order art course.

"I'm strapped," he blurted. "They hound me with phone calls and visits at work if I'm so much as an hour late with payments. I don't know where to turn.

I'm only telling you now because I'm going to be fired anyway. Couldn't before—you'd never trust me to manage hotel funds when I can't run my own!"

He didn't know that a husband is not legally obliged to pay a wife's debts unless they are incurred for the necessities of life. The mail-order collector had a surprise on his next demand for payment. He speedily decided that \$100 paid in already was sufficient. Now that bookkeeper is studying business law as well as hotel finance in his hours away from work.

Untold millions of other persons—farmers and small business owners as well as wage earners—suffer every day as did the confectioner and the bookkeeper because they do not know whether what is happening to them is legal or not. They fumble about, often not finding what to do until it's too late.

They become impertinent, or inefficient or incapable because they are harassed, say, by a selfish mother demanding support from an already overburdened daughter or by a neighbor who is threatening suit accusing an innocent son of throwing rocks through

windows. But interesting new measures are being evolved to help out of their difficulties those of limited means—60 to 75 per cent of the population—who neither desire nor deserve charitable legal aid. One of these new approaches grew out of the predicament of the confectioner and the bookkeeper. Their personnel director asked other employment officials at a convention what they do about similar problems. All conceded that many of their employees get tangled up and regretted that management must stand by helpless.

Help in personal affairs

EMPLOYEES so distressed are seldom efficient. Their personal lives interfere with their working lives. What was needed, the employment experts agreed, was a way to help workers in their personal affairs without invading their privacy. But how?

In technical papers telling about William Weiss, the management of the Waldorf-Astoria found the clue. Weiss, an attorney who became ill and unable to practice law actively, had set up a one-man, low-cost legal clinic. Using somewhat the same technique, the hotel established what is believed to be the first employer-provided group legal service for its employees.

In December, 1936, the *Staff News* of the Waldorf-Astoria warned employees that lack of legal knowledge might bring them into serious difficulties and announced that Attorney John H. Sherry was available for free consultation, by appointment, at his office, on company time or their own.

Since then, hardly a day passes without an employee visit to the lawyer's office and four or five consultations by phone. At first, the workers rushed in panicky about crises. Now they seek advice to keep out of trouble. Having learned the value of preventive law, they now anticipate the probable consequences of an act before committing it. What started as a six months experiment has turned out to be one of the most valuable services in the hotel's personnel program.

No fee is charged for consultation and about 80 per cent of the problems are cleared up through proper guidance only. For the 20 per cent which involve preparation and drafting of legal papers or court appearance, the attorney arranges small-scale fees. Mr. Sherry says people are not at all reluctant to pursue processes of law nor to pay reasonable fees once they are confident they will not be socked, stung or gummed up in

legal red tape. Most of the problems are common, everyday affairs arising out of the complexities of modern living—mystifying provisions in leases and a threatened eviction; a note endorsed for a friend in an expansive but possibly expensive moment; an unexpected and terrifying hitch in achieving naturalization papers; domestic disagreements heading toward divorce, etc.

In dealing with matrimonial problems, the attorney uses the clinical approach. Frequently, he calls in the parties concerned, gets each to see the other's side, and unsnarls the knots in their lives.

The average law office couldn't—or wouldn't—take the time to attend to such financially unproductive cases but the hotel group legal service arrangement makes it possible. In nearly five years, only two out of 150 near-divorce cases actually went to court. Further, most of the family adjustments, once made, continued.

Besides these important but intangible gains in morale, there are tangible savings for management. Formerly, the hotel had so many wage garnishees that a special person was designated to handle them and each case took his time and that of the paymaster, the employment manager and the hotel accountant

used to loiter outside the hotel. His aim was to waylay employees into signing tricky agreements assigning wages if they failed to pay for the watch or furs or furniture or correspondence course used as bait. Such salesmen no longer haunt the Waldorf-Astoria. It doesn't pay. The employees have learned to take papers to the attorney before signing.

"Improvements of such far-reaching effect are possible because the worker feels free to consult the attorney, confidentially, without so much as mentioning his private affairs to any superior officer," says W. I. Hamilton, the hotel's personnel director.

Officials of the Hotel New Yorker, which set up a similar service nearly three years ago, point out that any firm with 1,000 employees or more could engage its own group attorney and that companies with fewer employees could band together on a cooperative basis. The cost is modest—about \$1 a year per employee. The hotel officials say further that managements which appreciate that improved employee relations inevitably mean improved public relations may find it valuable to be the first in their communities to inaugurate this new social service since it seems that some sort of group legal advisory activity is inevitable anyway.

A bridge to clients

FOR society today faces the paradox that millions who are neither poor nor well-to-do must manage with no legal service while great numbers of attorneys exist on a mere subsistence level because they must manage without those very clients.

What bridge will connect them? Such a bridge should have three spans:

1. A free diagnosis whereby Mr. Average Person may find out whether or not what's on his mind falls within legal limits.

2. A low fee schedule with fixed rates for consultation—about three dollars for a half hour and five dollars for an hour—and definite,

announced small percentages for the less cut-and-dried types of cases.

3. A roster of lawyers agreeing to these prices who are classified according to the kind of legal work in which they specialize.

These three necessities are usually included in the new schemes being tried out by bar associations to bring clients and attorneys together. Minnesota's "poor man's panel," Chicago's, St. Louis' and Los Angeles' lawyers' reference bureaus and Philadelphia's Neighborhood Law Offices are among the

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Eighty per cent of the people who came had never consulted an attorney before

and heaped embarrassment and humiliation upon the worker. With the legal service, each employee is responsible for clearing up his own garnishee, although the attorney gives him sympathetic advice on how to go about it, emphasizing how the whole sorry procedure could have been avoided in the first place.

Within a year of announcement of the lawyer service, wage garnishments were almost at the vanishing point at the Waldorf-Astoria. Further, a type of unscrupulous installment salesman

Summer Strategy on Three Fronts

By JOHN CALLAN O'LAUGHLIN

Publisher, The Army and Navy Journal

UNDERSTANDING of basic objectives will make Axis day-to-day tactics clear

NAPOLEON once said that War is a business, a business of positions. This fundamental truth applies to the land, the sea and the air. The attainment of positions is the first design of strategy. From them, pressure can be exerted upon the enemy to compel him to yield. Hitler pursued this design in his campaigns in Europe, and is prepared to do so in his impending movement against the Red Armies. Japan, likewise, pursued it in the conquest of the Philippines, in capturing Hong Kong and the Malay Peninsula, in seizing Borneo, the Dutch East Indies and Singapore, and in striking from them toward Australia, into Burma and India, and the Indian Ocean.

To business men, these movements to positions, and operations from them, will appeal as sound, since the policy they themselves pursue in establishing plants and stores, is to select neighborhoods which assure easy access to labor and supplies, adequate transportation, and a central point in a promising trading area where competition is non-existent or weak.

In selecting locations, they are, unconsciously perhaps, dealing with strategy. Once established, they enter the realm of tactics.

Precisely in the same way do the high commands of nations at war prepare plans by which they can utilize all available resources, economic, political, military, naval and air, to achieve the objective of the conflict, that is, the annihilation of the enemy's armed forces. Once the opposing forces face each other, tactics enter into play to gain victory.

It is the practice of all nations at war to formulate their own strategic plans, and at the same time to study the situation so as to develop the probable strategic plans of the adversary. These



Hitler's most probable move is against Russia, but it is possible that he will choose Suez and the Middle East

things we have done in our own War Colleges and General Staffs, and they have been done in the like institutions of our enemies. Each nation, therefore, is in a position to anticipate the other's moves to some extent. For instance, in the present war the United Nations are trying by blockade to prevent food and essential materials from reaching the Axis Powers and by bombing to wipe out essential industries and interrupt transportation and thus to destroy the morale and fighting strength of the enemy peoples—and to establish a second front from which attacks may be launched.

This pressure, with the omission of large scale bombing brought about the

destruction of the Central Powers in World War I. It is the great fear of the German General Staff. In the case of Japan, she moved rapidly to gain control of all the possessions of the nations she surprised, so as to obtain their material resources, particularly oil, tin, rubber and rice, and, further, to use them as bases for expanded operations or resistance. Her great fear is the destruction of her fleet, which would enable United Nations severance of her communications with her forces in China, the Philippines, the Indonesian Archipelago, Burma, India and any other territories into which she may advance.

The problem of the United Nations



There is no certainty that Japan will continue to press against India and Australia. Her main drive may switch to Siberia

necessarily has other aspects. Primarily, they are concerned about Russia. They have provided all the supplies they possibly could spare for the Red Armies. Through the Navy they are convoying those supplies and maintaining the blockade. They may or may not establish a second front; certainly this is being done in the air. In the Pacific and the Far East, they are strengthening Australia and India, and occupying important islands to serve as positions for the fleet when it shall seek the Japanese fleet to destroy it.

We must prepare to attack

AT THIS moment, we face the fact that the Axis and Japan retain the offensive. That is to say they can strike when and where they will. Because we must lay the ground work for initiative on our part, all we can do this coming summer is to parry the blows that will be directed against us. Only in North Africa is the Anglo-American strength sufficient to offer a prospect of successful operations, and even decisive victory here cannot alter materially the world strategic situation.

Naturally, we are striving to estimate accurately where the Axis will strike, and whither Japan will direct her further main effort. We no longer have any illusion as to the capabilities of these foes, nor can we fail to recognize the vital importance of discerning the probable line of action they will take. To gain an idea of the latter, it is necessary to review their geographic-strategic situation. This prevails, as of this date, substantially as follows:

The Axis controls a considerable portion of the Earth's surface. They dominate most of Europe and, together with Vichy, a broad strip of North Africa.

Japan controls most of East Asia, the Malay Peninsula and the Indonesian Archipelago.

The European Axis zone contains a variegated and highly developed industry, but lacks many essential war materials. The Japanese zone contains nearly all raw materials, but especially oil, tin, and rubber. It lacks, however, an industry comparable with that in Germany. Were these two areas contiguous, Axis power would be multiplied manyfold. Happily, being sepa-

rated, they are unable to supplement each other's economy. This is one of the important facts of the world strategic situation. No wonder so many military commentators are prophesying that the first objective of enemy strategy will be to join forces by drives from east and west to a junction point somewhere in the Indian Ocean.

This junction probably is a long-term Axis objective; indeed, so important would be the economic gain for all partners, that sooner or later the attempt will be made to effect it.

Only brittle resistance, which will be determined by the current operations of Japan, would justify converging attacks to effect this junction during the coming summer. Entering also into such a decision would be the extent of the collaboration provided by the Laval Government of Vichy, particularly in the matter of cooperation by the French fleet with our enemies.

Russia menaces Germany

HOWEVER, to Germany, Russia appears as a dark cloud on the horizon. Though beaten in 1941, the Soviet Army never was crushed, and with winter, the oft defeated divisions themselves took the offensive, and forced their enemy to limited withdrawals. Until this army is destroyed, or at least neutralized, all Hitler's victories in western Europe will have proved of no avail. It is Russian strength which compels the Fuehrer to turn his attention this spring to the Red Army. He must realize that Russian annihilation is indispensable if Germany is to survive. The conquest of Egypt, the seizure of the Irak oil fields, even the capture of Bombay, would be merely Pyrrhic victories if Red Armies stood on the Oder River, threatening the capture of Berlin. Moscow and Vladivostok are daggers pointed at the heart of the Axis and Japan.

Neither Hitler nor Tojo can pretend that Russia doesn't really exist, and run away from her to undertake comparatively easy conquests in the Near and Middle East. She must first be dealt with. If her military power can be destroyed, Hitler and Mussolini will have ample troops and airplanes to meet British military power in these regions. The Indian Ocean junction thereafter can be effected at the leisure of Hitler and Japan.

All signs today point to the resumption of Hitler's offensive against Russia between May 1 and June 1. We are hearing now of increased German naval activity in the Baltic Sea, of battles between huge air armadas, and of large troop concentrations behind various sectors of the German eastern front. The ground, even in the Ukraine, will not be hard enough for uninterrupted

tank operations until at least May 15; and it was tank and air superiority that made possible the German victories over the Red Army in 1941.

It would appear doubtful, therefore, whether Hitler will attack until his Panzer divisions can operate at full efficiency. This probably will not be earlier than May 15. If, however, spring is late this year in Russia, the offensive may have to be delayed until June 1. Hitler's hands are bound by the weather.

But what of Hitler's strongest Axis partner—Japan?

She certainly will not remain idle.

Mere isolated islands of resistance as exist in the Philippines and Burma will continue to fight, hoping for a turn in the tide of the war. But unless our Navy is able soon to intervene, they are doomed.

In five months of war, Japan has completed the first phase of her expansionist program and won a strategic position of the greatest military and economic importance. In fighting their way to the Indian Ocean her army and navy have separated India from Australia, and now threaten the security of the British maritime supply lines to India and Egypt. Japan also has won a central position between the British

Empire and the United States from whence she can strike in any one of several directions. Using interior lines, she can attack India to the west, Australia to the south, or, perchance, even Hawaii to the east.

There is no certainty, however, that Japan intends to press invasion of India or attack Australia in the immediate future. Probably her attention is actually directed to another theater of war.

Axis moves are doubtful

THIS we may assume in view of the treaty of alliance signed by Germany, Italy and Japan in September, 1940. That treaty declared it to be the purpose of the signatories to stand by and cooperate with one another in regard to their efforts in greater East Asia and regions of Europe respectively. Further "to implement the pact," the partners bound themselves to organize technical committees. Those committees have been constantly in session for a year and a half. They have exchanged intelligence, and agreed upon plans of cooperation.

Can we expect to find this summer their armored forces acting in concert towards a common objective? This question cannot be answered at the mo-

ment with any certainty. Japan's military plans are carefully screened, and Tokyo is launching a diversity of rumors to confuse the issue, and thus cloud the true Japanese objective.

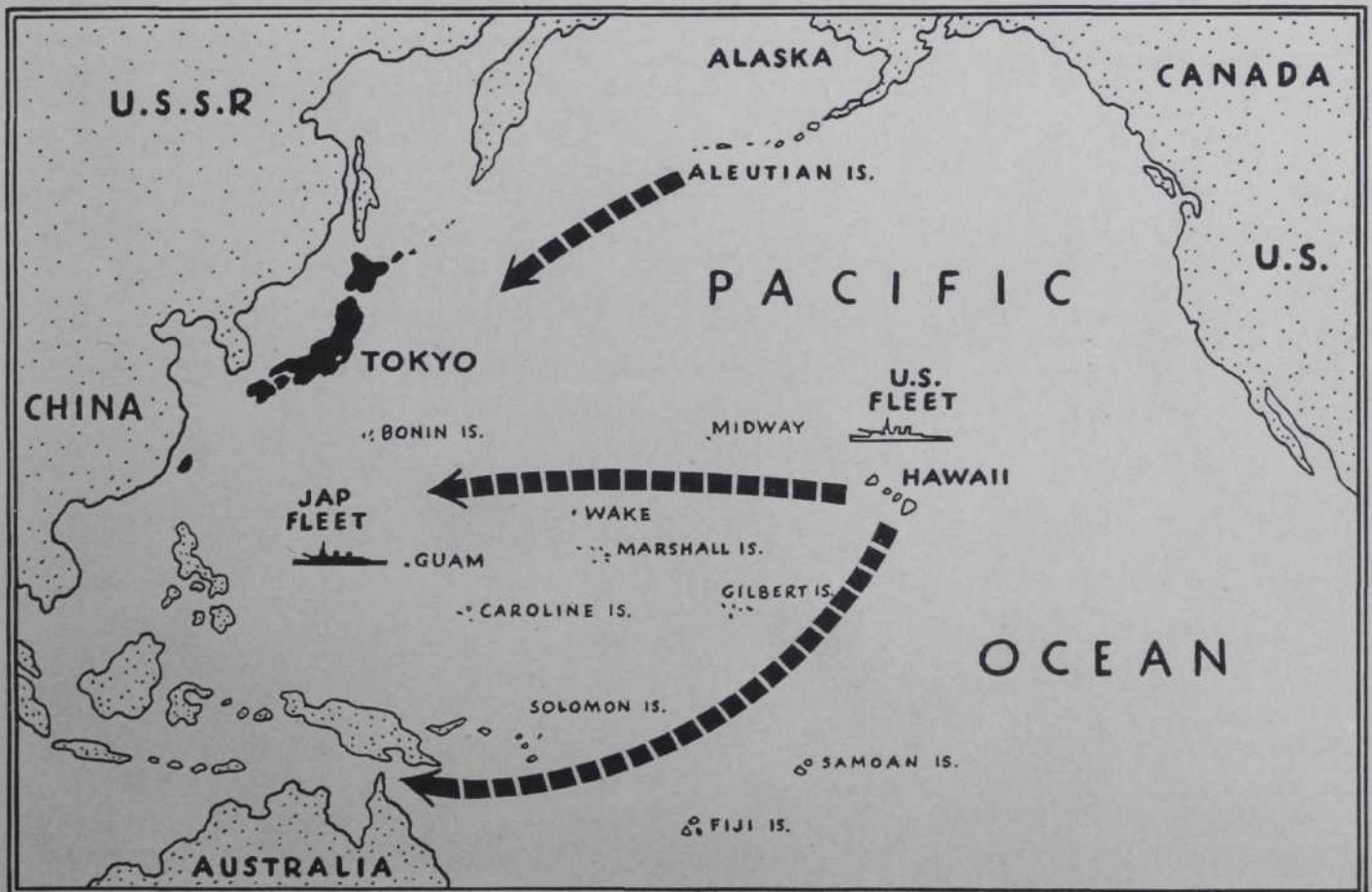
If a common Axis military plan does exist, we have every reason to expect the next Japanese move to be directed against Soviet Russia. Germany's assault on Russia would be materially assisted if the Japanese should launch simultaneously an attack on Siberia.

It does not seem to make sense for Japan to attack Australia while Germany attacks Russia. If the Axis embarks on such divergency attacks, outside observers will have ground for concluding that no common Axis strategic plan exists.

It is axiomatic that no greater injury can be inflicted on the United Nations than destruction of the Soviet Army.

While recognizing the supreme importance of the Russian conflict, the United Nations cannot afford to neglect the possibility that, after all, the Axis may be using Russia as a blind, and is actually planning to strike elsewhere. All military critics appreciate the capabilities of the Axis to move upon Suez, India and Australia, if they desire. One can only say, it is more probable they

(Continued on page 80)



There are three routes by which we can reach the Japanese fleet which is stationed west of Guam. A northern route by way of Alaska, a middle route through Wake and the mandated islands, and a southern route through islands north of Australia

N.Y.A. Meets the Press

AUBREY WILLIAMS has been forced to reveal to a startled nation that a partial inventory shows that his National Youth Administration has been hoarding 27,467 machine-tool, metal-working and wood-fabricating machines, some of them new, high speed, high precision tools.

These machines have been permitted to remain uncrated pending arrangements for future training of young workers while every factory wall in the country carries a sign "Idle Tools Work for Hitler."

When the Government's right hand learned what its left hand was doing, steps were taken which will presumably put these machines to useful work in war production. Plants making military equipment are being told that the N.Y.A. tools will be handed over to them if suitable for their production lines.

However, N.Y.A., whatever else it may lack, has many friends with well-

primed tear-ducts on the alert to line the wailing wall. Mrs. Roosevelt has announced that she would be willing to "compromise" with Congress on the question of continuing the organization. N.Y.A. may eventually keep its tools. If it does, other machines which escape the organization will undoubtedly continue to turn out war materials.

However that may be, the incident is still important. The fact that N.Y.A. was forced to admit its hoarding dramatically demonstrates why dictators abolish a free press as one of their first steps toward absolute power.

Those who pretend omnipotence dare not permit reporters with a nose for news or a sense of humor to make public their private jealousies and selfishness. Thus, having first established a necessary censorship in time of emer-

gency, they expand its powers until the people can write—or, more important, read—only what those in power desire to have known.

Under such a system, N.Y.A.'s tools could still moulder secretly in their crates if it suited some one's pleasure to keep them there, while American soldiers died for lack of munitions those tools might make.

Under our system—as it is today and as a watchful public can keep it—journalistic enterprise makes such things known. It has done this in the past—the O.C.D. expose; the killing of congressional pensions; the revelation of R.E.A.'s copper hoarding, are recent examples. If permitted, it will do so again.

As to the way it does it and the ob-
(Continued on page 81)

At College Park hastily uncrated equipment is moved from a basement to the unfinished N.Y.A. shop after reporters visit the scene

BALTIMORE SUN



MANAGEMENT'S *Washington* LETTER

A last minute roundup by **FREDERICK SHELTON**, Washington observer of government and business

THE TRUE SHAPE of things to come can't be seen with the naked eye. The far view is blurred, changing, confusing. But a man can look closely at the near view, note direction of trends, and get some idea of the picture these trends will make in the next few weeks, months or years.

Something has hit Washington hard. You've heard official big-shots and radioists chiding the public for complacency. NOW some 230,000 Washington jobholders, many of them fit soldier material, are beginning to sense that "the country" is AHEAD of Washington and in a mood to punish officialdom for complacency and "government as usual" if things go wrong.

So, big new moves are brewing—all in the direction of tightening and speeding the war effort.

Broad, overall PRICE CEILINGS are the beginning. Henderson and O.P.A. will soon have an army of 25,000, maybe 40,000, price-police eagle-eyeing all who sell to the public. Retailers holding for higher-than-March prices may be stuck.

But RATIONING also will soon be put into effect on a big scale—probably some time in May. O.P.A. doesn't like the job but the President is convinced it's needed to bolster price ceilings and is about ready to order it. (May start it first in one state, for practice.)

Thus a major drive against INFLATION is about to begin. Experts agree that prices will spurt dangerously in 1943 or soon thereafter unless bold steps are taken. Even with the controls about to be

applied, the view is that the price level will move up, perhaps 15 per cent in the next year or so. (Ceilings will be inched up as needed to prevent suffocation of business operations.)

Broad attack on inflation forces comes after months of half-way measures. It will NOT be called the Baruch plan, but is enough like it to embarrass those who previously snubbed Baruch. Main trouble now will be finding ways to put the plan into effect. Eccles, Morgenthau, Henderson, and Wallace have somewhat conflicting ideas on what to do. Job of drafting specific program may fall on Harold D. Smith, Budget Director. (Smith shies from publicity, but is making a big reputation as a competent administrator.)

Inflation controls will call for tougher policies on wages, farm prices, profits and taxes.

Anti-business campaign of Left Wing is slowing down. Reason is that—

Private industry IS doing its job. The factories are turning out the war stuff in a mighty stream. The chorus of criticism of makers of steel, aluminum, planes, tanks, guns and munitions will soon fade. Spotlight will shift to those whose job it is to make good USE of the stuff being produced.

There are some serious "war profit" troubles, however. Cause of private enterprise is being hurt by a few contractors who have "cleaned up." Lush bonuses to office secretaries and top

corporation officers (isolated cases) have given the "reds" new ammunition to attack ALL business men.

New curbs on war profits are planned. Rigid limits by law probably will not be voted, but ways will be found to take nearly all the "extra" earnings on war business.

Union leaders are sensing the wave of hostile public opinion and are hustling themselves to squelch strikes, "voluntarily" relax overtime pay scales, and are trying to discourage rank-and-file movements for wage increases. A new burst of labor-union troubles could quickly make Congress pass legislation really to curb the unions.

This prospect probably will make for much better employer-employee relations in the next few weeks.

Green and Murray have shelved most of the A.F.L. and C.I.O. controversies, but John L. Lewis still lurks on the sidelines, ready to raise a new ruckus 'most any moment. His idea for a "third" labor organization is taken seriously in A.F.L. and C.I.O. quarters.

Lewis will be potent in politics in 1942 and 1944 elections—balance-of-power influence in a few key states.

Man power: Plan for a board to mobilize all available workers is delayed by the scramble of high officials to take control of it. Need for it is less apparent now than when first talked. Fact is industry has set up its own schools, is training workers, probably would be hampered rather than helped by a government man-power board. But some sort of new government labor mobilization agency will be created.

Government has NO plans to follow up registration of over-draft-age men.

This was ordered partly as a gesture to show no discrimination, partly as a census just in case drastic steps may have to be taken later.

"Industrial commandos": Nothing probably will come of this idea (Morris L. Cooke, promoter) for mobile squads of government

specialists who would swoop down and take over plants inefficiently run.

Ships! These still are the No. 1 war shortage. New production is tremendous—more than was even scheduled a few months ago. But the NEED expands rapidly, due to sub-sinkings plus lengthening of voyages forced by enemy successes. But prospects are not too bad. Speed-up in shipbuilding is closing the gap. Almost un hoped-for results will be seen in shipyards by late summer.

Problem of seamen to sail the ships is still unsolved. This is a critical situation, little publicized because it's a ticklish union matter. Seamen "jump ship" in U. S. ports—go to work ashore at fancy U. S. wages. American seamen are far too few, are able to be choosy about sailings, tend to try to boss the skipper.

New \$100,000,000 smaller war plants corporation: This is a W.P.B. job, and Nelson will boss it. First time Congress has really by-passed Jesse Jones on a government lending proposition. Plan is to be generous with loans. Signed war contracts are not prerequisite, but applicant must show some sort of promise of war work. (If interested, ask W.P.B., Washington, or see your regional W.P.B. office.)

Also your local banker now can make free-and-easy loans to war contractors, can get loans guaranteed by his Federal Reserve Bank, which in turn will be underwritten by the Army and Navy.

Little businesses forced to close by priorities and rationing probably will get relief from Congress. Chances are good for law to permit government to take over such businesses at a fair price, avoiding sacrifice close-outs.

Nelson's policy is to produce the goods and not quibble about cost—recover excess profits through tax laws. The Senate defense industries investigating committee (Sen. Truman) is bearing down so hard on profiteers, however, that stricter attitude may be forced upon him. Some New Dealers

already are beginning to take digs at Nelson, lament his lack of concern about profits. Truman committee already has put fear into many Army and Navy procurement men, caused them to move more cautiously on contracts, sometimes slowing up urgent business. Left-wingers find they can use this committee as a forum for attacks on dollar-a-year men.

House military affairs subcommittee (Faddis) is more friendly to industry—sometimes stages hearings which offset anti-business publicity from Truman committee.

Antitrust laws: Chances are that Congress will vote waiver of enforcement where government certifies "combinations" are essential for war purposes. This now is the policy, but fear is that business men can't depend on informal assurances.

Thurman Arnold, Department of Justice antitrust enforcer, has the last say and he's hard to convince. He's a lone wolf, brash and blustery, but a power. While many "liberals" are shifting to embrace "monopolies" under government supervision Arnold still crusades the 1938 anti-bigness theme of the T.N.E.C. Present regime probably would like to oust Arnold, but he is strong with Congress and could wash much dirty New Deal linen in public if an attempt were made to squelch him.

Rubber remains a troublesome issue. Henderson insists there are to be no civilian tires for the duration. But one government group says we've GOT to have tires to keep war workers on wheels. And politicians fear rubber as an election campaign issue.

Synthetic rubber will not be enough, but it will begin to ease the strain in a year or two.

New automobiles: Don't be surprised if at least one smaller plant is put to work making a few cars within a year—to supply essential needs. Also busses.

Coal: Take seriously official advice to stock up NOW. Otherwise you may be in trouble next winter. It's a matter of rail transport facilities.

Railroads are doing a marvelous job, but may be made whipping boys later when tie-up at docks and terminals (not their fault) will make a shortage of cars.

Power companies are headed for government ownership, gradually. In a year or two more of war some of them will get rate increases but these will only partly offset higher costs.

S.E.C.: Tried hard to become a "war" agency, is still trying, but probably will shrink in news value during the war. It will not retreat on break-up of holding companies, but will postpone final forced liquidations—due to bad market for utility stocks.

1942 taxes: No final legislation until fall—September or October. But in another month you will know the House plan, which will NOT be the last word. The Senate always does a major rewrite of tax bills and this year under leadership of Finance Chairman George it will have more to say than usual on taxes.

Sharp increases over 1941 tax levy are the prospect for corporations and most individuals. You can't be sure what your rates will be until the year is nearly gone, but if you put aside reserves on basis of original Treasury proposals you will be on the safe side.

Chances for a sales tax system are improving—I'm almost (not quite) ready to forecast final adoption of such taxes. Senator George will favor sales tax, and will carry much weight.

Husbands-wives: Treasury plan to force



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AMERICAN AIR FILTER COMPANY, INC., 109 CENTRAL AVE., LOUISVILLE, KY.

IN CANADA, DARLING BROTHERS, LIMITED, MONTREAL, P. Q.

them to lump incomes in joint return probably will NOT be accepted.

Forced bond-buying: Looks as if some provision virtually to coerce purchase of war bonds will be included in new tax law. May take the form of deduction allowances for bonds bought. Fact is Treasury bond sales are falling short of what's necessary for inflation control. The Treasury doesn't like to coerce, but is apt to come to it by fall.

Life Insurance: Companies will lose some present tax preferences, will pay more taxes. But policy-holders may get a break. Tentative plan is to permit deduction of something like half of amounts paid as annual premiums, with a limit of, say, \$1000.

One tax boon to parents probably will be allowance of dependency credit for children in school until age 21 (now 18).

Excess profits tax will be tightened sharply—will recover for Treasury nearly all real "war profits." But rigid limit on nominal profit permitted on war contracts will be avoided.

Generous pension trusts for corporation executives will be denounced vigorously in Congress. Charge will be made that these are a device to pay officers in a form that exempts from stiff surtaxes. 1942 tax act probably will drastically limit such funds.

Congressmen are scared. Most of them fear the voters in the next election. Both Democrats and Republicans look for major upsets in primaries and in November. Even some Democrats think the Republicans will get control of the House.

Outcome depends on the trend of war. In November we probably will have either (1) very good war news or (2) a Republican House.

Republicans would LIKE to conduct a quiet campaign—word-of-mouth, door-to-door, no big nation-wide radio speaking. Each candidate would stand on his own

record, make his own local issues. But they probably will not be permitted to do this. Despite the President's public stand against party politics as usual, the administration's campaign forces are getting ready to put the heat on all candidates who are or have been vigorously critical of the present regime.

Washington bureaucrats are getting increasingly intolerant of all criticism. Campaign will be bitter despite intentions to keep it on a high plane. Roosevelt party workers will smear critics as "friends of the enemy" and Republicans are sure to make a hot issue of the laxness, waste and confusion of the administration in managing the war operations.

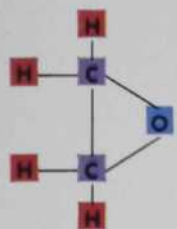
Censorship: Propaganda is as much a part of modern war as the shooting. All agree that peacetime freedom of the press must be modified. Remember this when you scan the newspapers and hear the radio. There's a chance, however, that the White House-Mellett-MacLeish combination may go too far and produce an adverse public reaction.

President has tried for weeks to devise an overall information-propaganda agency, but can't find the right man to run it. Mellett could have the job, but he doesn't want it—prefers to keep in the back-ground.

Congressional Record has been notorious as "dry" reading. Now it's as near uncensored as anything you can read. It prints what congressmen think and say—even the indiscretions of some hot-head oppositionists. (Can subscribe for it from Government Printing Office, Washington.)

Kind word for congressmen! Despite their well-known demagoguery they are apt to be blamed unfairly in wartime. Their main power ordinarily is in control of the purse. In war they MUST vote lump sums, and trust the executive branch to use it well. As a practical matter they can't check every administrative folly without impeding war operations. Keep this in mind next time you want to cuss your congressman.

CAN YOU MAKE THESE SPELL HEALTH?



These are a few of Nature's great building blocks—Carbon, Hydrogen, Oxygen, Nitrogen, Chlorine. They seem inexhaustible in their abundance. By working with them...in ever new combinations...chemical science is bringing better health to millions.

Vitamins contribute to health. And now, thanks to chemical science, America is assured a plentiful supply of precious Vitamin B₁. Today, this vital material is created from *synthetic organic chemicals*! Using Ethyl Acetoacetate and Ethylene Oxide (whose structure appears at the left), pharmaceutical manufacturers can turn out Vitamin B₁ in huge quantities. Other vitamins, both A and D, are now being concentrated from cod liver oil through the use of Ethylene Dichloride.

Malaria a threat? Quinine was formerly essential in the treatment of this dread disease. In the face of a quinine shortage, chemical science has developed a *new antimalarial substance*... superior to the natural product in many ways. It can be manufactured in quantity from Ethyl Acetoacetate, Diethylethanamine, and Acetone.

Facing an operation? Perhaps your surgeon will use Divinyl Ether, an *improved general anesthetic* made from Dichlorethyl Ether. Do you ever take *aspirin*? The present low price of this pain alleviator is possible because Acetic Anhydride used for making aspirin is produced economically by *synthesis*. Going to the dentist? He may give you "*Novocain*" anesthetic to avoid pain.

Diethylethanamine is one of the important raw materials for making this local anesthetic. A *heart remedy* is made through the use of Ethylenediamine.

Thus synthetic organic chemistry, complementing the field of pharmacology, is helping to extend life...to combat health menaces...to alleviate pain. Constant research, keying in with the work of others in many fields, can be counted upon to produce other great developments in the future.

Ethyl Acetoacetate, Ethylene Oxide, Ethylene Dichloride, Diethylethanamine, Acetone, Dichlorethyl Ether, Acetic Anhydride, and Ethylenediamine are among the more than 160 synthetic organic chemicals produced commercially by Carbide and Carbon Chemicals Corporation. These products...all of them created by synthesis from Nature's building blocks...include vast quantities of such essentials as chemical raw materials, solvents, plastics, and anti-freezes...which serve all industry.

The great strides made in the field of synthetic organic chemistry by Carbide and Carbon Chemicals Corporation have been facilitated tremendously by technical assistance in the use of special alloys and metals developed by Electro Metallurgical Company and Haynes Stellite Company; by the special carbon products of National Carbon Company, Inc., and by the application of many engineering and processing methods perfected by The Linde Air Products Company—which companies also are Units of Union Carbide and Carbon Corporation.

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If We Are to Keep America on Wheels

By FRED DeARMOND

THE OLD-TIME ballad singer stuck his head in front of a baby spotlight and sang, "You never miss the sunshine until the shadows fall."

Hamlet, weighing the known torments of life against the unknown hazards of immortality, soliloquized, "to be or not to be."

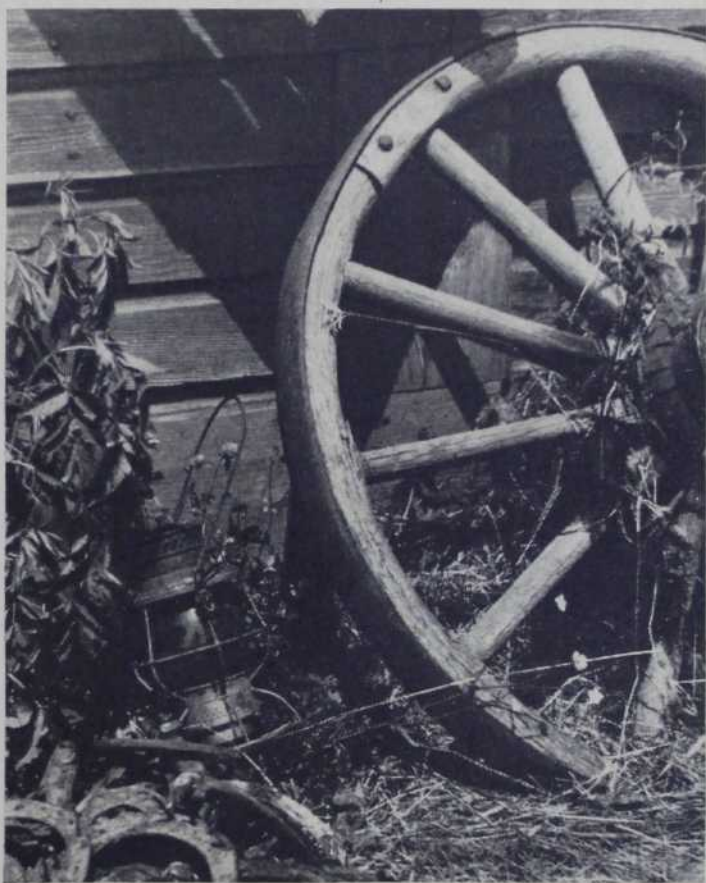
Longfellow complained of a "feeling of sadness and longing that is not akin to pain."

Put them all together and you approximate the state of mind of the present American motorist contemplating his car's underpinning. Tires have been like water from the tap. Anybody could have them who could reach an outlet. We bought them profligately, abused them blythely and got more miles out of them than we deserved. If the rubber for making them came from the Dutch East Indies that concerned only the people whose job was to bring it from there and make it into doughnuts that would stand up while we made a 50 mile speed limit look ridiculous.

Then the Indian jungles filled up with little yellow men full of rice and evil intentions.

Tires immediately became everybody's concern. No motorist, however accustomed to ordinary backseat driving, could escape bewilderment at the advice, conjecture, invective and prophecy that beat upon him from everywhere. Hysterical and contradictory threats, predictions and ukases issued from Washington. Extremist viewpoints emerged. One was inspired by the current scare psychology in Washington. The idea seems to be that the materials for this war will have to be taken "out of our hides" as one official put it. The facts must be colored with the dye of pessimism, or "realism," as it is called.

With his mind filled with rubber facts and propaganda, it was natural that the motorist should bounce



WILL WEISSBERG—HESMITH

Our economy is built on gasoline motors and rubber tires; we cannot return to the tools of the past

around. He wanted to win the war, God knows, but he wanted to protect himself while doing it. He attempted to conserve rubber, only to have Leon Henderson warn him that his tires might be confiscated for the good of the country.

"To hell with that," he said. "I'll get all the wear I can out of them before some government clerk or W.P.A. supervisor starts riding around on them."

Gasoline sales jumped and a lot of good rubber was used up before somebody explained that confiscation probably wouldn't occur.

Other tire owners hurried to lay in tires against the future, thus cutting down the available supply before it could be frozen. Hundreds of thousands rushed to have old tires recapped before rubber for that process was frozen, too. Tire men say that many of the recapped tires did not need it.

Yet others, who had heard the cry of "wolf" before, paid no attention. They remembered the gasoline scare which ended with plenty of gas everywhere except in the minds of those who fostered the story. They went on using their tires carelessly—which was another waste.

A few, who listened carefully to the conflicting encyclicals, tried to suit their actions to the outcry of the moment. That way lies madness—camel-back, guayule, Liberia, export 100,000 workers to Brazil, Butyl, Buna-S, chlorine, wooden tires, 40 miles an hour, inflate, deflate, petroleum, treason, bootleg, Singapore, five per cent pure rubber and a hey nonny, nonny.

It probably surprised no one to discover that a thriving "bootlegging" industry grew up overnight, when

sales of tires to the general public were put under a government ban. The experience of prohibition days provided the technique and the bootleggers.

Prices were fanciful, but no more so than the prices of prohibition booze. Almost automatically, a round figure of \$50 per tire seemed to blossom out as a base charge—probably on the theory that the traffic would bear it.

No one knows just where these tires come from. The bootlegger usually has a plausible story—he had saved a couple of extra spares for a rainy day. Many come from individual hoardings, hard to trace; others from dealers who saw the shortage coming and built up inventories.

Still others—no one knows how many—are just plain stolen goods. Tire thieves are at work everywhere. Sometimes they merely pilfer spares, but many make a wholesale job, especially on quiet suburban nights, and strip all four wheels of the car as well.

From state after state have come reports of drastic penalties for these thieves—penitentiary sentences that should break up the practice if rigorously and ruthlessly applied.

But they will have to be applied, not only to the tire

A thousand small American towns—suburbs or country villages—are able to exist and serve their surrounding areas because of autos . . .



thieves, but with equal vigor to the bootleggers who deal in these stolen goods.

One thing promises trouble for the bootleggers. They will enjoy little of the passive non-resistance of prohibition days—especially those who deal in stolen tires. They and their thieving suppliers will quickly be put into the “horse thief” class, and maximum sentences will win public applause.

Meanwhile the regimented peoples of the enemy countries are getting along without rubber. According to some views, we should do the same.

“It will be a good thing if rubber is taken away from the civil population for a while,” according to this opinion. “We have become too dependent on the automobile. We’ll be healthier for walking and our roads will be safer.”

Or:

“If there’s a rubber shortage, let’s put up our cars until we lick the Japs and then we’ll have all the rubber we want.”

Unfortunately it isn’t as simple as that. Americans can’t draw in their belts and live as the Spartans lived or as the Germans live, for the simple reason that we have developed an automobile economy. Our

34,000,000 motor cars—compared to Germany’s 2,000,000—average about 8,650 miles a year, at least half of them “necessity driving.”

Commercial travelers average 18,791 miles a year; farmers, 5,750 miles and industrial workers 7,657.

The United States isn’t made up of a lot of small towns, each decentralized and fairly self-dependent. A German *hausfrau*, summoned to care for an ailing sister-in-law, has only to run down the block. An American housewife might have to drive eight miles to the other side of town or out to the suburbs. Fritz in Essen can eat his breakfast and hike down to the Krupp works. Smith, in the United States, lives on one side of Hartford, Conn.—or maybe in Springfield, Mass., 28 miles away—and the only way he can get to the Pratt and Whitney plant is by personal automobile.

Take our cars away from us and we’ll be lost, not because they ruin our pleasure or keep us from going where we want to go, but because an automobile is a vital part of our life. Imagine what our suburbs would be like without automobiles! They just wouldn’t function. An automobile-less America would be an America of ghost communities, an America deprived of its striking power and with its war effort seriously handi-

... Without cars, modern facsimiles of Deserted Village will bloom all over the country, ghost towns through no fault of their own

OLSON'S STUDIO



capped. One east coast shipyard, for example, found recently that its average worker lived 17 miles from the yard itself. A worker cannot move his home to his job nor can we turn around at this late date and move our factories next door to our workmen.

The National Highway Users Conference, after a recent study, decided:

Transportation is as essential as production in our effort to achieve victory. Producing the things we need and using the things we produce necessitate moving men and materials when and where they are needed. Fulfillment of the obligations to keep a fighting America on the move involves gigantic all-out efforts by all agencies of transportation.

And, according to this study, the automobile has an important place among "agencies of transportation." Some of 2,320 American cities and towns with 12,500,000 population have no form of public transportation, 872 have no mass transportation except buses and 29 per cent—or 48,000—of all communities in the

country must depend on motor cars for both passenger and freight transportation. They have no railroads.

The private passenger car looms so big in our whole mobile way of living that we are inclined to forget how much we rely on it. Cold figures reveal that it accounts for ten times as many passenger miles as the next most important form of transportation, and nearly four times that of all other means combined.

To move or not to move?

It is superficial to say that, in the cities at least, people can lock up their cars for the duration and turn to public transportation. The Transportation Department of the National Chamber, in its recent study of local passenger transport, found that the most accurate estimates indicate buses and street railways will be called upon to handle 20 per cent more urban and suburban traffic in 1942 than in 1941. An additional 20 per cent jump is expected in 1943 and that will tax to the utmost the capacity of these services. But 20 per cent increase in this traffic represents only 3,000,000,000 passengers—one-fourth of the essential city and suburban driving, or one-seventh of the total driving. These figures make it clear that the great bulk of local urban travel heretofore carried by private automobiles must continue to be so carried, or be suppressed.

Moreover, the present value of the country's rolling stock—cars, trucks and buses—exceeds \$12,000,000,000. Without tires, that investment cannot be put to war use. Furthermore, we have—or did have on January 1—in the United States some 40,000 car dealers and 240,000 gasoline filling stations, in addition to various related wholesale establishments. A total of 421,473 business establishments, according to the census, are actually engaged in selling or servicing automobiles. These establishments, with more than 900,000 employees and more than \$1,000,000,000 a year in pay rolls, are all affected by any curtailment in the sales or servicing of motor vehicles. Many of these, such as new car dealers and tire dealers, are already out of business so far as their main activity is concerned. Unless we find some way to keep rubber on our present automobiles, other thousands of dealers and service businesses will have to close their doors and the American public will fail to realize any benefits from its vast investments in cars and roads.

Still another serious problem is the financial hardship that will be placed on all governmental bodies from the loss in revenue from automotive and related sources. At the present time motorists pay approxi-



Other countries may do without rubber but we have built our whole life around its use

mately \$1 out of every \$8 of taxes collected in the United States. According to the United States Public Roads Administration, the taxes paid by motor vehicle users in 1940 totaled \$1,802,748,000. Of this amount, something more than \$400,000,000 represented federal excise taxes on motor vehicles, tires, parts, gasoline, etc. This leaves nearly \$1,400,000,000 of tax income to the state, municipalities and counties.

The direct highway obligation of the states, including the debt for rural highways, exceeds \$4,800,000,000. These obligations must be serviced by the income from automotive vehicles. Unless we can find some means of keeping these vehicles rolling on the highways, this source of income will suffer seriously, and, as a result, new taxes may have to be levied, perhaps bearing more heavily on real estate owners, including farmers.

With these facts in mind, the prediction that 1,000,000 cars will leave our roads in 1942, 5,000,000 next year, and 9,000,000 in 1944, is something to worry about.

Going, going—

The following table, computed by the rubber statisticians on the basis of government figures, shows the progressive rate at which the number of automobiles on our roads and streets will decline if no new tires are available and no recapping is done except for priority cars—those driven by doctors, government officials, police, veterinarians, etc.:

Year	Non-Priority Cars	Priority Cars
1941	27,300,000	6,000,000
1942	26,600,000	6,300,000
1943	21,800,000	6,500,000
1944	12,100,000	6,800,000
1945	3,900,000	7,000,000

Obviously, we need to keep these cars going. Can we do it?

The answer is probably "No." But it isn't an unqualified "No." If everyone will do his part to see that his own automobile isn't among the 16,000,000 that face retirement by 1944 because of lack of tires, the number can be greatly reduced.

But—and this point has been sadly overlooked—those who are asked to cooperate deserve an explanation of why their cooperation is needed. They should know that their own sacrifice is not made necessary by somebody's selfishness or stupidity and they ought to have definite instructions as to how they are able to cooperate and why they are doing what they do.

That's little enough to ask. It is little enough to give



For years private industry has been testing synthetics for tires. This is Goodrich Ameripol

if those who seek to get their names in the papers in connection with the rubber shortage would take the time to give it.

This is a good place to take the time.

1★ The Rubber from Over the Seas

Consider the figure, 650,000. Our stock piles, and others. How much rubber for a blitzkrieg? Japan holds 97 per cent of natural rubber. One Brazilian dies for every ton produced. Ceylon and India. Liberia has a little. Rubber farms in junk piles. Tires for low speed driving.

TO BEGIN with, let's consider the figure 650,000. That is approximately the tonnage of rubber this country imported every year. About a third of it went into passenger car tubes and casings; 37.9 per cent went into truck and bus tires, while industrial goods, footwear, airplane and other tires, drug sundries and miscellaneous uses gobbled up the rest. Other countries,



Workers, living as much as 50 miles away, drive to their jobs in plane factories. Their cars are actually war production tools

having fewer automobiles, got along with much less. The United Kingdom needed about 122,000 tons annually; Germany, 80,000; Japan, 50,000 and Russia, 22,000.

Six hundred and fifty thousand tons is also about what we have in our stock piles and, oddly enough, about what we now have in use as automobile tires.

How much of the rubber on hand will be needed to carry on the war is, of course, a military secret, although 200,000 tons seems like a plausible estimate. However, among the inflamed reports about rubber is one that says our military machine will need 650,000 tons a year; we will need 215,000 for our allies and 165,000 for civilian use.

Those who tried to keep their shirts on during all the recent hubbub discovered that carrying on a war doesn't take such astronomic quantities of rubber as the scare psychologists were building into their Babylonian tower of statistics. According to the best available information, Germany's highly mechanized and spectacular campaigns since September, 1939, have been conducted on, at the most, 200,000 tons of rubber a year, of which a goodly portion was synthetic. Japan's rubber needs have been much less, and that goes for Italy and Russia.

Stock piles in the Axis nations cannot have been large, as we know that the combined imports of raw rubber by Germany and Italy in the seven years from 1932 to 1938 were only 568,000 tons—less than this country was importing in one year. The United States

is the world's biggest rubber consumer only because we have most of the world's private automobiles.

But, whatever our military needs may be, the fact remains that 97 per cent of the world's natural rubber came from areas now in Japanese control. Driblets come from other places. Brazilian jungles might be good for 25,000 to 50,000 tons annually, at the reputed cost of one Brazilian life for every ton produced; Firestone's plantations in Liberia might throw 7,500 tons into the pot; Mexico is good for a few tons and guayule cultivation in our own Southwest would add a little—although that is perhaps five years in the future.

Ceylon and India should produce about 100,000 tons a year but, as matters stand today, no realist would count upon our getting it even if they did.

If we did get it, and if the other countries mentioned produced according to the most optimistic expectations, our rubber imports in the next few years would still fall considerably short of the most modest estimates of military needs.

It is true that every ton so obtained will multiply its effectiveness by making usable a larger quantity of synthetic and reclaimed rubber, and in the form of camel-back for recapping and retreading.

"If we can get 50,000 tons out of South America," says *India Rubber World*, "we could produce 10,000,000 first-line 6.00 x 16 tires. Or we could recap more than 20,000,000 tires with high-quality camel-back."

If we can't get enough rubber any other way, we can

always reclaim rubber, according to one view. To be sure, there are old rubber tires in junk yards all around the country. You don't have to go any farther than your own garage or basement or attic to find a lot of rubber which can be reclaimed.

But getting this rubber into production is not as easy as it sounds. In fact, it is not even easy to get to the core of the reclaimed rubber situation because the estimates of the amount of rubber we can obtain for reclamation vary from 500,000 tons a year to 1,500,000. Some experts have gone so far as to say that we can recover 3,000,000 tons of old rubber, but this seems doubtful. A fair estimate seems to be that 350,000 tons a year can be obtained for the next three years. Currently we are reclaiming rubber at the rate of 335,000 tons a year, which is about our present manufacturing capacity for reclaimed.

Normally, for automobile tires, only 30 pounds of reclaimed rubber are used for every 100 pounds of virgin rubber. In December of last year tire makers were using 50 pounds of reclaimed rubber to every 100 pounds of virgin rubber. Back in 1926 when prices of raw rubber hit the ceiling the tire makers used 55 pounds of reclaimed rubber to every 100 pounds of raw rubber. The reclaimed rubber tires which will be used during the emergency, however, will have two pounds of raw rubber and 22 pounds of reclaimed rubber, but they will be good for only about 5,000 to 6,000 miles of low-speed driving.

What we need is scrap

The job of stepping up production of the reclaimed product should not be too tough. The bottlenecks at present are the lack of scrap rubber, the lack of plant capacity and the lack of chemicals, chiefly caustic soda. Experts say that we can get the scrap rubber if we go after it. To build a reclaiming plant requires steel, but not so much as to interfere seriously with other aspects of the war effort.

The real problem today on reclaimed rubber seems to be to get the scrap. The Government is planning a campaign to do just this. Authorities believe that it will be necessary for the Government to take measures to force the nation's scrap rubber pile into the hands of reclaimers.

One suggestion is that scrap can be recovered without force, by offering an incentive to the donors in the form of certificates giving them preference in new tire purchases or recapping.

Even if imports and reclaiming flower as luxuriantly as anyone could hope, we will still be considerably

short of the amount of rubber we have been using annually.

Can synthetic rubber bridge the gap?

2 ★ The Rubber from Test Tubes

We know how to make it. We haven't made very much. Headlines and facts. Blame somebody else, not me. "Dealing with the enemy." Shouts of "treason." What we got from Germany.

THE SYNTHETIC rubber situation has had a great deal of publicity, most of it bad and all of it confusing. It has involved much finger pointing and a few hoarse cries of treason. Anyone who cares to gasmask his way through the fumes of invective that cloud the situation will come finally upon two simple facts:

We know how to make synthetic rubber.
We haven't made much of it.

The recent Senate investigation may be used as an

Although nobody eats rubber, the varied diets of city people definitely depend on it

EWING GALLOWAY



illustration of how the motorist has had confusion added to confusion.

Certain politicians, facing primaries and November elections, and skilled in the fine art of publicity, saw a chance to grab some startling headlines by investigating synthetic rubber and linking those two facts together. They called in Thurman Arnold. Spectacular charges were made before the Truman committee based on the peculiar assumption that private industry should

Much was made of the fact that the Standard Oil Company (N. J.) had showed the Germans how to refine regular commercial gasoline and given them the rights to certain American refining processes.

Almost no attention was given to the fact that, in return, Standard got:

Processes which led to three different kinds of synthetic rubber.

A method of hydrogenation by means of which we can make



In the past, 97 per cent of the world's rubber has come from forests like these which are now under Japanese control and unavailable to us

have foreseen the fall of Singapore and the Dutch East Indies, even if the Government didn't. Apparently whatever happened to public morale or expectations as a result was less important than getting someone else to bear the blame for jacking up the family automobile for the duration.

Nobody wanted that. One member of the Cabinet—and it wasn't Secretary Jones—frankly said he didn't:

When tires go flat an excited populace is going to ask who in Washington was responsible. And I'm not going to be in a position where they can say, "It's that So-and-So——."

Others said so indirectly by making charges about "secret processes," dealing with the enemy, and other forms of treason.

gasoline out of coal, thus permitting us to plan ahead 1,000 years instead of 30.

A process for making synthetic toluol, without which this country today would be in imminent danger of losing the war, due to a lack of military explosives.

Processes which contained the germ of the method for making 100 octane gasoline which gives our war planes a big power edge over our enemies.

Moreover, all these transactions took place in 1929, four years before Hitler came into power and more than a decade before anyone but Homer Lea had prophesied that the Japanese would one day conquer our sources of natural rubber.

Nothing better exemplifies the buck-passing, witch-hunting stage of war-making in Washington than this

attempt to divert public attention from the official failure to anticipate what enemies might do to our rubber supply. In 1929 this country was at peace with Germany. Everywhere men were abjuring international trade barriers and preaching a return to free commercial intercourse. Patents, inventions and trade processes are values in commerce, just as sugar and cotton are. To practice the division of labor among nations, ideas as well as commodities must be exported and imported.

just where we stand in synthetic rubber and how we got there.

The story starts when Standard technologists spent two years in Germany studying the work of German chemists. The world had long envied German skill in synthetic chemistry and the American investigators were particularly impressed with certain petroleum processes to which they finally obtained American rights for their company.



But the Japs can't occupy ingenuity. This is a modern rubber "plantation," cylinders of butadiene, a liquefied gas obtained from petroleum

When the tremendous military importance of the processes obtained by the Standard in this trade is appraised, it will be appreciated that, from a defense standpoint, the Germans were decidedly out-swapped by the Yankees. Even at that time they must have seen themselves on the short end of the bargain, otherwise they would not have insisted on being paid \$30,000,000 "to boot." Looking ahead a few years, one can picture some post-war committee in the Reich branding as traitors to the Fatherland the directors of I. G. Farbenindustrie for bartering to Americans the means by which the dreams of German world conquest were eventually trailed in the dust.

Since public attention has already been forcibly centered on this story we might as well use it to explain

Among the products thus obtained was "Vistanex," a rubber-like substance good for many purposes. It had unparalleled properties for electrical insulation. In fact it was so good that even today it is helping the United States win the war, in ways which the censor will not permit us to tell.

But Vistanex couldn't be vulcanized. That and other properties were needed to make it an ideal rubber for automobile tires. The American petroleum technologists set out to give it these properties. It was not an overnight job. Countless experiments went into it; formula after formula; test after test. One disappointment after another came out.

But, when these American scientists got through with Vistanex, they had made something out of it that

Germany had never been able to get. They called their product Butyl rubber. The molecular structure of Vistanex had been changed from a rubber-like substance into a rubber that can be vulcanized.

By 1940 the Standard Oil chemists believed they had in Butyl rubber a product which, with further developments, might be used for tires, although at that time no one (except our 1942 hindsight oracles) ever dreamed we would have to use synthetic rubber for tires.

The average motorist would not have shared the scientists' enthusiasm. The first Butyl rubber tread, vulcanized on a natural rubber tire carcass, separated after running only 17 miles.

By the summer of 1940—when present critics say they should have been making Butyl tires in quantities, they got 200 miles from a tire made entirely from their synthetic.

But they were learning. Today the rubber companies know how to make Butyl rubber tires which—at speeds of 35 miles an hour or less—will last for 10,000

Our states owe more than \$4,000,000,000 for roads. Without cars new taxes will be needed

EWING GALLOWAY



miles—just about the life of a good natural rubber tire in 1922.

So, out of Vistanex by persistence we have Butyl, on which the civilian motorist can pin his hopes for war-time tires. For the Government, another synthetic, Buna-S, obtained in the same trade as Vistanex, is already being tested and used for tires on military equipment. For the present, it will be used only for this.

Science wasn't sleeping

Nor are Butyl and Buna-S the only synthetic rubbers available in this country, although for tires the Government considers them the most promising.

Long before Pearl Harbor the chemical genius of the du Pont industries developed a synthetic rubber known as Neoprene. Du Pont has been a large producer of this product, which has many features and many uses for fabricating products other than tires. Neoprene can be used successfully for a wide variety of articles. However, its manufacture calls for the use of large amounts of chlorine, which today is difficult to get.

Goodrich has a synthetic rubber called Ameripol, which has been fabricated and used in the manufacture of tires. Experiments with this product have been extensive and much is expected from it. This company, too, had the vision and courage to experiment with synthetic rubbers at a time when the present dearth of raw rubber seemed utterly fantastic.

While private companies were carrying on these researches, the Government, which now condemns them for "holding back production," took little interest in their efforts. Over a period of three years, Standard suggested the possibilities of Butyl to the Army, to the Navy, to the Chemical Warfare Service, to the Advisory Commission to the Council of National Defense, to the Army and Navy Munitions Board, the Reconstruction Finance Corporation, United States Bureau of Standards, Office of Production Management and War Production Board. It encountered a profound lack of interest, doubtless a reflection of the public's lack of apprehension.

Three months before Pearl Harbor the Government suspended work on a plant to produce 15,000 tons of the rubber intermediate, Butadiene. One month after Pearl Harbor, it authorized the Standard Oil Company to go ahead with construction of this additional plant.

Meanwhile the Government, its interest finally aroused, is to spend at least \$500,000,000 on synthetic rubber plants. The motorist can take hope from that—but not so much as Vice President Wallace seems to feel.

Mr. Wallace, who only within recent weeks arranged conferences between government officials and chemists interested in finding an adequate rubber supply, says he has known of Butyl's possibilities for three years. He says further as quoted in the *Washington Post*:

"Butyl rubber, the synthetic developed by American chemists from petroleum by-products, will end the rubber shortage. The Butyl process is fast. There need be no waiting around to build factories."

More confusion for the motorist, because, unfortunately it is not as simple as that. Butyl is not made in the kitchen sink or the silo. It can't even be made—as Senator Truman was recently quoted as saying it could—by every petroleum refinery in the country, although in appearance a Butyl plant resembles a large oil refinery.

A Butyl rubber plant costs about \$700 for every ton of capacity. It is made up of miles of metal coils. It has tall distillation coils of steel, large reaction chambers which must be kept cold. To keep them cold requires refrigeration equipment.

Of course, it takes steel to make the plants that make rubber. These plants do not spring up overnight merely because the Government appropriates \$500,000,000. No question is raised about allocating all the steel needed to produce the rubber that our military establishment calls for. But when we speak of civilian rubber, there is the hurdle of steel priorities. That projects an unknown quantity into the synthetic program. When there is promised 25,000 tons in 1942 and possibly 200,000 to 300,000 tons in 1943, and by the end of 1943 a plant capacity of 700,000 tons annually, no one seems to know just how much of that will be non-military.

More dams or—rubber?

Fearful that the synthetic program does not take adequate account of civilian needs, the Petroleum Industry War Council has offered a resolution asking for an additional 300,000 tons of synthetic rubber a year, to be earmarked for that use. According to one authority, it takes about a ton of steel to produce annually a ton of synthetic rubber. If that is true, one day's output of the steel industry—300,000 tons—would meet the possible extra need as now visualized. Regarded in that light, it isn't a lot of steel!

The American share of the St. Lawrence waterway project alone will call for more than 125,000 tons of steel. Which do we need more—enough tires to keep our cars in service, or more dams?

These figures on future supplies and consumption



Amusement enterprises pay licenses and taxes, relieve strain of work, all useful in war-time

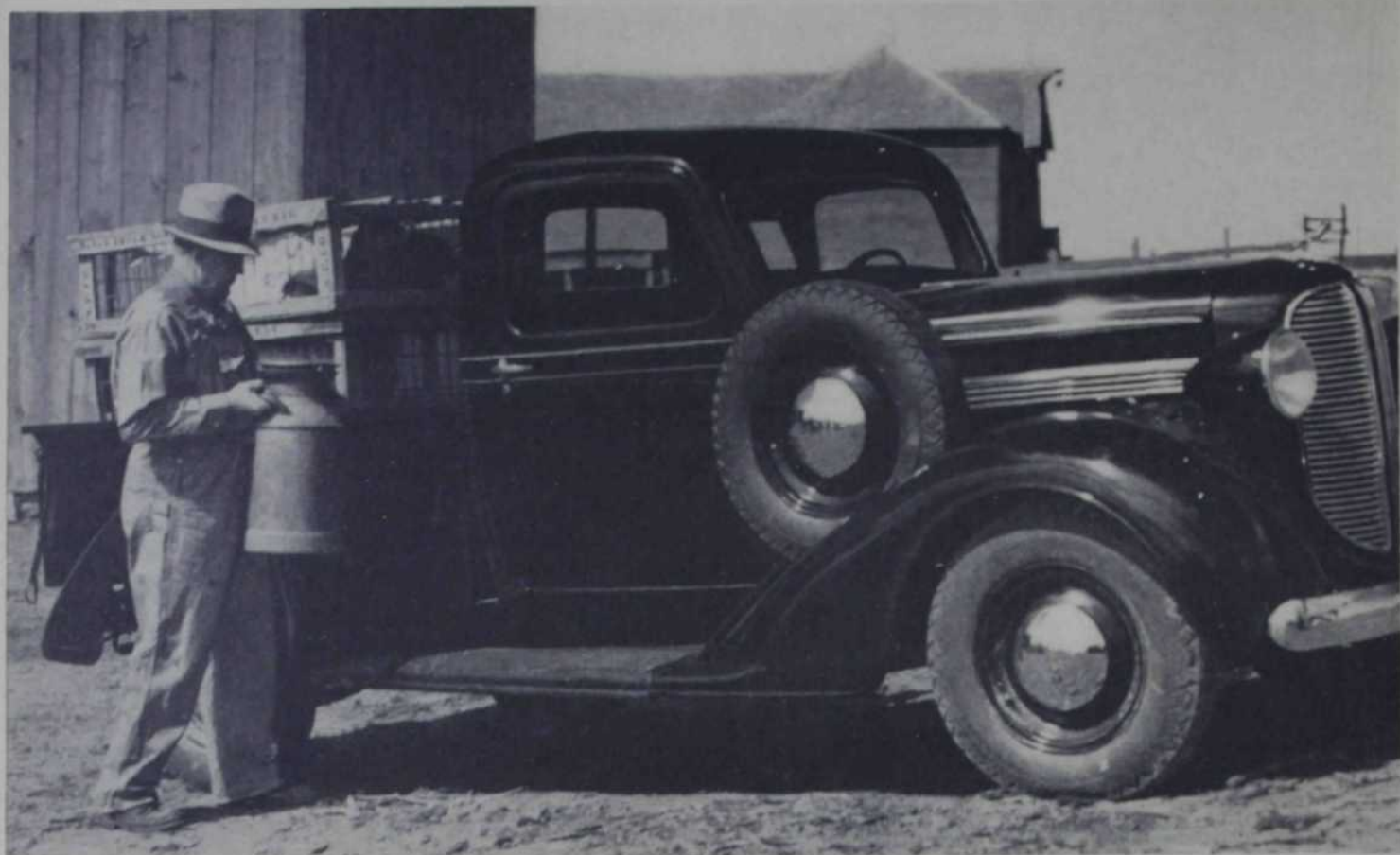
by the armed forces are hedged about with so many qualifications that they may seem small comfort to the individual who sees his tires wearing out and is anxious about where the next set is to come from.

3 ★ Rubber from Sensible Driving

When punctures were expected. 2,000 miles for \$35 to 25,000 for \$16. It could be 50,000. The people can stay mobile. Watch speed. Inflate properly. Cross-switch your tires. Take some driving lessons. You have three times as much car as you use.

BUT NO quick and positive answers are available now without resort to the imagination. There is, however, some comfort in the fact that the motorist himself exercises a degree of control over consumption. He can help himself by getting full value for the money already spent for tires.

The story of tire improvement has been told repeatedly. Any man past 40 can recall a Monday morning when the office braggart first came down to work boasting that he had driven from Chicago to Bloomington and back without a single flat! When Harvey Firestone died, in 1938, a writer recalled the time when a Ford tire had retailed at \$35 and given 2,000 miles of service. Thirty years later a Ford tire sold at \$16 and



Good roads and fast transportation have reacted to the mutual benefit of those who raise the crops and those who use them

was expected to last for 25,000 miles. In 1908 the tire cost per 1,000 miles of driving was \$17.50; in 1938 it was 64 cents. That was value multiplied 27 times, a record of which any industry could be proud. Actually, with a little help from its customers, the industry could have been far prouder.

Experts have proved that a properly cared-for set of automobile tires will last 40,000 to 50,000 miles, instead of the 25,000 the ordinary driver gets. While the knowledge may come too late to help the man with a set of tires that have been battered through 20,000 miles of careless use, most of our cars today have tires that are in good condition and can readily see their owner back to tire stability if he follows a few simple rules.

How to take care of our tires and save rubber that we Americans have been flinging to the wind like rain is a story that deserves to be repeated until every driver knows it by rote and follows it religiously. Here is a case where public and private interest dovetail perfectly. Every man wants to keep his car in service and how long he can do so depends at least 50 per cent on his own efforts. The nation wants to keep its people mobile and effective against the enemy. Every minute of time and every ounce of energy are in demand. The

automobile is the greatest time-maker and step-saver ever invented.

The rubber situation is a dramatic race. Racing in one direction is the Government, aided by industry and the technologists, trying to reach a production that will meet the motor car owner and give him new tires before he has a blowout. Racing in the other direction to meet the Government program is the motorist. If either is slowed up or stopped, the distance to be covered by the other is increased by so much. If auto owners stretch their tire life an average of 20,000 miles, that may give the rubber program another two years' time in arriving at the meeting point.

Now for the rules that will do much to insure the completion of this race by both runners.

First: Watch speed. The oft-repeated warnings against fast driving have a scientific basis. The faster a tire revolves, the greater the heat it generates—and heat is an enemy of rubber, as you can prove by putting a golf ball on a hot radiator for a short time. The way to beat heat is to drive under 40 miles an hour. In fact, you should drive less than 35 miles per hour to get every dollar of value from your rubber. Moreover, if you're smart, you'll drive your car as little as possible during

the hot summer months and will try to use it in the cool of the evening instead of the heat of the day.

Second: Inflate properly. A tire one-third under-inflated will wear out twice as fast as a tire properly inflated. This is easy to understand. A tire inflated to the proper degree will not flex and bend as much as an under-inflated tire. Flexing generates heat. Minimize this flexing and you lessen wear. It is up to you to keep your tires properly inflated by checking them at least once a week and taking whatever steps are necessary. Overinflation is almost as bad.

Third: Cross-switch your tires. Tires wear unevenly and the way to spread the wear evenly is to change them around from wheel to wheel. This should be done every 3,000 to 5,000 miles. You don't have to do this yourself. It's part of the order of service today at thousands of service stations throughout the country. But you had better have it done if you want to get through this period. And as a patriotic American you have a duty to see that it is done.

These three steps alone will save you thousands of miles of wear. But they are not enough. You must also learn to drive in such a way as to decrease tire wear. Don't let the clutch in quickly and get off to an abrupt start, thus causing your tires to spin and inducing undue wear. Don't go around corners on two wheels, but shift gears and slow up. Don't cross car tracks at high speeds. Don't slam on the brakes at a traffic stop light—or anywhere else unless in an emergency. Learn to let the engine serve as a brake and come to slow, even stops. And don't hit humps or holes at high speeds or drive rapidly over bad roads.

Always park carefully against curbs without scuffing your tires.

These aren't suggestions. They may well mean the difference between your having tires on your car and not having them. So, don't think it's something the proverbial other fellow should do.

It's up to you as a motorist and as a patriotic American to follow these rules and adhere to them in your own selfish interest.



With the high pay of arms makers luring workers away, the farmer needs the best help he can get. Rubber can be a faithful servant

MCMANIGAL

Here is what tire care will mean in terms of longer life, as worked out by tire men:

Tires now good for one year at 50 miles an hour will be two-year tires at 30 miles an hour.

One-year tires inflated in the usual haphazard manner will be 15-month tires if the "war pressures" are checked weekly.

One-year "leaping start" and "bucking stop" tires are 15-month tires with sensible driving.

To add four months for every year of driving with your present equipment, put your best tire on the left front and carry the poorest as your spare.

Complete tire service alone will add 47 per cent to tire life. This is the story told by actual case history records.

More efficient use of cars will also lengthen tire life and add strength to our war efforts. Repeated counts show that, under normal conditions, the average automobile load is between 1.6 and 1.7 persons although the typical car has a capacity of three times that figure. The Transportation and Communication Department of the National Chamber points out that such inefficient use of cars threatens to deprive the car owners of

America of their machines much sooner than necessary.

The answer is to bring together individuals who can practically employ joint use of automobiles, or "group driving," which is effected largely through direct arrangement among neighbors. In addition, plant managements have applied a variety of ways to facilitate the pooled use of cars, says the Chamber Committee. Many plants are now using space on their bulletin boards to enable employees to contact others wishing to share automobile travel. Tributary residence areas are divided into districts enabling employees to obtain names of other employees in their districts. Employees are marking home locations on maps printed for the purpose and showing bus and rail lines within 50 miles of the plant. This information serves both to promote sharing of automobiles and the determination of bus and rail transportation needs.

Along still another front industry is doing its part to cut down the needless use of motor vehicles. In the 15 cities in which it operates, the United Parcel Service, which serves 2,000 merchants, long since has replaced with a single fleet of special delivery cars great numbers of individual-store trucks. This pooling of deliveries has reduced traffic congestion and promoted tire conservation by reducing duplication on delivery routes.

In various other parts of the United States consolidated retail parcel delivery services are operating with similar benefits. Today conditions have brought home to merchants and manufacturers throughout the nation the desirability, from a tire conservation standpoint alone, of pooling their delivery services. Much saving of tire wear should result from an expansion of this program to every city and town.

4 ★ The House that Rubber Built

A job for supermen. Fifty years' work in 18 months. Some want to "freeze" everything. Rubber-tired wheels mean guns and butter. Today is important. Synthetics for all kinds of jobs, from girdles to golf balls. War, Mother of inventions. The compensation that resides in evil.

THE HOUSE that rubber built has been pulled down by Mars. To reconstruct it in the midst of the greatest war in history is a job for supermen. The goal of the synthetic program sets for industry in 18 months an achievement which it took nature 50 years to reach.

These two great industries, petroleum and rubber, supported by steel, chemicals, cotton textiles and others, believe they are equal to this mighty task. They are going to give it everything they have.



Without rubber, household tasks, made simple by progress, will be the same drudgery grandma knew



**Perhaps lawns need not be sprinkled in war, but what of incendiary bombs?
This hose, of regenerated rubber, has white ends, easier to find in a blackout**

Tire men are substantially agreed that, given reasonable cooperation by auto and truck drivers in conserving the rolling rubber stock, they can keep America on wheels if the Government will work toward the same end.

Unquestionably there are earnest men in Washington who understand the pressing need for civilian tires and want to meet it. But it is equally clear that another faction is thinking of the rubber situation strictly in terms of military needs. They are the men who are so set on "freezing" everything that they see no danger in freezing the very mobility that makes the nation powerful. It is they who tell us that Americans must toughen themselves and get along without automobiles during the emergency, as the people in Germany and Russia do. And then these amateur strategists tell us that our Army and Navy need three or four times as much rubber as the Germans or Russians use for military purposes.

This attitude seems to be the result of failure to appreciate the fact that wars are won or lost on the home front. It is really the most hopeless form of defeatism to say that America is not capable of fighting a war without abandoning the very things that make a people strong. An America on its toes and slugging means an

America on wheels.

We could not return to the horse and buggy age, even if the planners decreed it. In the first place, there are not enough horses and mules to carry the load. In 1910, when the population was 91,000,000, we had 24,000,000 horses and mules. By 1940, when the population had grown to 131,000,000, the horse and mule count had shrunk to 15,000,000.

If an effort is made to turn the transportation clock back and dispense with the automobile for the duration, there's another puzzle to solve, says Chester H. Gray, director, National Highway Users Conference:

There are no wagon and carriage factories in the country large enough to make the old-time vehicles which would be necessary. The building of factories to turn out horse-drawn vehicles would subtract materially from the metal supplies which have now been largely allocated to war enterprises. Not only would the wagon factories require metal for their construction, but so would the vehicles to be built in them, as proposed by some illogical visionaries. There is, on the average, about 400 pounds of metal in a regularly equipped farm wagon. If trucks should be eliminated, it can safely be estimated that half the farms of America, or about 3,000,000—saying nothing about other occupations which also would need horse-drawn vehicles—would have to purchase at least one farm wagon. Two or three wagons are necessary to do the

hauling done ordinarily by one truck. So the wagons alone would take 600,000 tons of metal in the making.

It is rubber-tired wheels that take Americans to work, making guns as well as butter. Talk of taking America off wheels as an aid to all-out war effort is like advising a man in a hurry to take a bicycle from Chicago to San Francisco.

Wheels keep the population in community, state and nation well-knit. They are the principal means of recreation for workers and farmers. Without rapid individual transportation, people would tend to become isolated, disgruntled, indifferent to the war.

The nation's No. 1 industry must be kept alive through the war against the real crisis—the day of reconstruction.

We can be excused for thinking of the synthetic rubber industry only in terms of today. Today is important, desperately so. But it is a mistake to regard this new industry as just something we will use during the war. All indications are that it has come to stay. It will not vanish with the army cantonments and the "emergency" propaganda agencies. It will still carry on when ships once again haul rubber without benefit of convoy.

Technology is approaching a point where we will have many synthetic rubbers, each with special characteristics and each designed for a special use. There

may be one synthetic rubber particularly suited for tire treads, another that finds its niche of usefulness in inner tubes, because of its quality of retaining air, and its porosity, another for tire carcasses and still another for side walls. There will be a substitute rubber ideal for garden hose, ladies' girdles, golf balls, automobile batteries or what have you. Synthetic rubbers which are impervious to the damaging effects of oil and gasoline will command a variety of uses in industry. Automotive engineers have long wanted to use more rubber in automobile engines but could not do so because oil would ruin it. Now there is a rubber not injured by oil.

War's necessity often mothers inventions that rise up in later years to forget her past and call her blessed. Wilbur Wright would shudder if he could come back to view the cities desolated by his flying machine. But against that disillusion might be set off the advances in medical science that Ambrose Pare wrung from the blood and torture of battle, and the discoveries of all the chemists who, while studying to destroy, have also learned to construct.

If there be a Phoenix that rises triumphant out of the ashes of war, one likes to think of it as the spirit of science in industrial laboratories. There, if anywhere, is that Compensation which Emerson said resides in all evil.

Getting the most there quickest is important in war. Moving arms from factory to front, or port, is a job that requires all our facilities



DELAND

TWO WAYS TO GET MORE OUT OF YOUR PRESENT BURROUGHS MACHINES

Today, when it is so essential to make the best and fullest use of the figuring and accounting equipment you now own, and to make that equipment last you as long as possible, Burroughs offers two extremely valuable and timely services to Burroughs owners.

Both Burroughs advisory service and Burroughs mechanical service have been time-tested throughout the years, and are nationwide.

They are available to you through your local Burroughs office, or by writing—

BURROUGHS ADDING MACHINE COMPANY
DETROIT, MICHIGAN

Burroughs

【BUY UNITED STATES DEFENSE
SAVINGS BONDS AND STAMPS】



BURROUGHS ADVISORY SERVICE

Burroughs technical advisory service is rendered by men trained and experienced in systems and in the installation of machine equipment. Their knowledge of machines, applications and procedures is especially valuable in meeting today's changing conditions . . . suggesting operating short-cuts that save time . . . finding ways to handle related records in a single operation or to obtain vital statistics as a by-product of necessary posting.



BURROUGHS MECHANICAL SERVICE

Burroughs experienced mechanical service is rendered by Burroughs' own salaried, factory-trained, factory-controlled men. These men inspect, lubricate and adjust Burroughs machines. They make repairs and replacements with genuine Burroughs parts. Their work is guaranteed by Burroughs. Conveniently located throughout the nation, Burroughs service is available in the shortest possible time.



Congress Sits in the Driver's Seat

By SAMUEL B. PETTINGILL

THE National Legislators hold the wheel, but unless the voters are careful to pick good drivers, there is likely to be a wreck

LAST MONTH I said that Congress is the Board of Directors of the American people. It sits in the meetings of all other Boards. It is invisible at these meetings, but not inaudible. It votes. It is present at every hearthside.

The by-laws of every company say that only stockholders shall have the right to vote. The stockholders meet and elect directors. So they think. The by-laws are wrong. The workers in that factory have elected a Congressman. He directs also.

Or, putting it another way, the members of a labor union meet and elect their directors and officers. If an outsider attempts to vote he will be given the gate. But the outsider has a vote in that union of which he cannot be deprived. He, too, may elect a Congressman.

When the Big Board meets at Washington it is not bound by any resolution passed by any other Board. It can veto practically every action taken, or policy decided upon. It can create competitors to that factory, financed with the factory's own funds. It can destroy its natural markets through its power over imports and exports. It can fix the hours of work and regulate the wages and salaries paid. Through the sovereign power to tax, it can determine the maximum profit the factory can earn. Under new concepts of constitutional law it is probable that the Big Board on the Potomac can decide that the factory shall earn nothing and convert it into "production for use" which is parlor pink for Communism.

The Big Board at Washington is im-

portant. It is important who sits on it. It is more important than it is to decide who shall sit on any other Board whatever.

It seems incredible that many millions of intelligent people ignore these facts.

As John Garner once said, "I'd rather have the barbers with me than the bankers. The barbers vote."

He could have named other classes besides bankers who don't take the trouble to vote, or put in nomination good men for the Big Board.

Laws have more effect

YET it all came about naturally. For a century or more the Big Board was in fact not so important. A farmer, for example, might live a life-time without being affected by any vote cast at the meetings of the Big Board.

Those days are gone. Today the Big Board tells how many acres the farmer can plant, and with what seed. It can penalize his wheat, already green. It can fix the price of his milk. Or, if he and his wife and children pick their own apples, the Big Board can, in effect, decide that his apples must rot unless he and his wife and children join a union and pay for the high privilege of picking their own apples from their own trees on their own farm.

Did I say "own"? Excuse me. That word is passing out also. Who owns anything any more?

Shall we come alive to the world we live in, or shall we sleep on? Last December the Big Board in Washington

voted three war resolutions. In each of them it pledged "the total resources of the nation" to the prosecution of the war. That includes your resources. I make no objection to this action. There was no alternative after Pearl Harbor. It does, however, raise questions about this word "own."

But, if there had been no war, the principle of what I am saying would not be affected. In peace-time as well as war-time Congress can vote continuous deficits of \$5,000,000,000 a year, or \$15,000,000,000 or \$50,000,000,000.

Already the post-war planners are drawing their blueprints, and your money is paying for their printing and distribution. Vice President Wallace is the head of one of these planning boards. Frederic Delano is the head of another—the National Resources Planning Board.

The major thesis of these planners is that we lacked fiscal courage in the 1930's. We spent only \$3,000,000,000 or \$4,000,000,000 annually which we didn't have. We should have spent \$15,000,000,000 annually which we did not have—or \$20,000,000,000 or \$30,000,000,000, or whatever was necessary to get "full employment." They say "costs and income are just opposite sides of the same shield." If you only spend enough of what you don't have you will have everything!

Following that argument to its conclusion—since costs and income cancel out—we ought to pay off the entire national debt this year. Or if we decide to postpone the debt to a more convenient season, why levy any taxes? If national



Groups of people like this, meeting in blacksmith shops, in taverns, stores, and on street corners, demanded that the Constitution be amended to guarantee certain rights. Among these are Freedom of Speech... Freedom of the Press... Freedom of Religion . . . Freedom of Assembly.

To these Four Freedoms . . . add another

RANKING in importance with these freedoms is another that Americans have added . . . Freedom to Plan One's Own Future.

Nowhere on earth is a man so free to plan his own future as he is in America. Of all the world's life insurance, 70% is owned in the United States where men, women, and children enjoy to the fullest the right to pursue happiness and security in their own way.

This right is not something that just happens to be in the air we breathe. Men had to fight to wrest it from the forces of oppression.

Today, these forces are at work against us again. They have thrust upon us a fight that requires more on our part than

the will to win. Victory requires tanks and planes and guns and battleships, huge armies, munition plants, and all other implements of total war.

To build enough of these things, fast enough, takes money—unheard-of sums of money. And the United States Government needs that money right now . . . today!

★ ★ ★

Your life insurance companies, through investment in Government Bonds, are helping to fill Uncle Sam's war chest. You also can help by buying all the U. S. Savings Bonds and Stamps you can...every week, every month! Every Bond you can buy is urgently needed to help defend America, and all its people, including you

and your family! Make every payday, Bond day. U. S. Savings Stamps may be purchased at any Metropolitan Office, or from any Metropolitan agent.

Metropolitan Life Insurance Company (A MUTUAL COMPANY)

Frederick H. Ecker,
CHAIRMAN OF THE BOARD
Leroy A. Lincoln,
PRESIDENT

1 MADISON AVENUE, NEW YORK, N. Y.



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debt is only the opposite side of national income, why not, as Shakespeare said in "Winter's Tale," "for perpetuity go hence in debt"? I ask you.

It is possible that you studied arithmetic and double entry and have not seen The Beatific Vision. If so, it is still important for you to know that this doctrine is on the way to gain millions of adherents in the 435 Congressional Districts in America who will vote to elect Congressmen and Senators next November. Read the radical journals. The argument is that "if by deficit spending we can have a \$100,000,000,000 income with time and a half wages killing foreigners, why can't we have it taking in each other's washing?"

Planned divided authority

THE planning board the founders of the Republic intended you to have was not to be chosen by either the Vice President or the President. Their planning board is the Congress of the United States which *you* are privileged

to choose if you care enough to do so.

But this is not quite true. Our fathers intended each of the 48 states to have planning boards also to sit at the state capitols. Forty-nine planning boards in all—with distinct powers and separate jurisdictions.

This was intended to prevent any one of the 49 from acquiring supreme power. Our fathers were suspicious of supreme power in any hands. They had lived under Hitlers. All of the 49 boards were further subjected to the limitations on their power set forth in the Constitution.

Where are those restraints today? They have been thrown out of the window. Under the new interpretation of the words "general welfare" and "interstate commerce" the sooner we face these stark facts the better: One, that Congress today (with the President) has practically supreme power over the economic life of every citizen; and, second, a world wide civil war is now waging against private property, thrift, work, sweat, savings, interest, div-

idends, free enterprise, and freedom itself.

On any question affecting the power of the federal Government it is not likely that you will live to see another act of Congress declared unconstitutional. It is probable that a universal draft—in peace-time—of all civilians to any task would be upheld by the Supreme Court of the United States. If Congress *has* power to promote the "general welfare" who will now sit in judgment and tell Congress how and to what extent that power shall or shall not be exercised?

The question is not: "Has Congress the power?" but "Will it be exercised and how wisely or fairly?" With supreme power concentrated at one point, American politics becomes a fierce struggle by pressure groups, each wanting to control the Government for its own benefit. Government tends more and more to become a predatory mechanism whereby one group may "vote us to earn their living for them," as Booth Tarkington once wrote me. It becomes a contest between workers and shirkers, bees and drones. If the bees go only to their little board elections, and the drones go to the big board elections, who wins?

The advocates and apologists for American totalitarianism say that, however dangerous this power might be in other hands or lands ("shackles for the liberties of the people"), it is a benign power to America. They assert two reasons. One, under free elections, regularly held, the people, they say, can prevent the abuse of total power.

Fewer can vote freely

THIS sounds convincing, but in actual fact, how many of the electorate are *not* free to cast a free ballot? As the Government extends its economic controls over more and more areas of people's lives, it is merely sly to say that they are politically free men. "Whose bread I eat, his song I sing." Millions of people are afraid to vote against the source of their pay, their pensions or their subsidies.

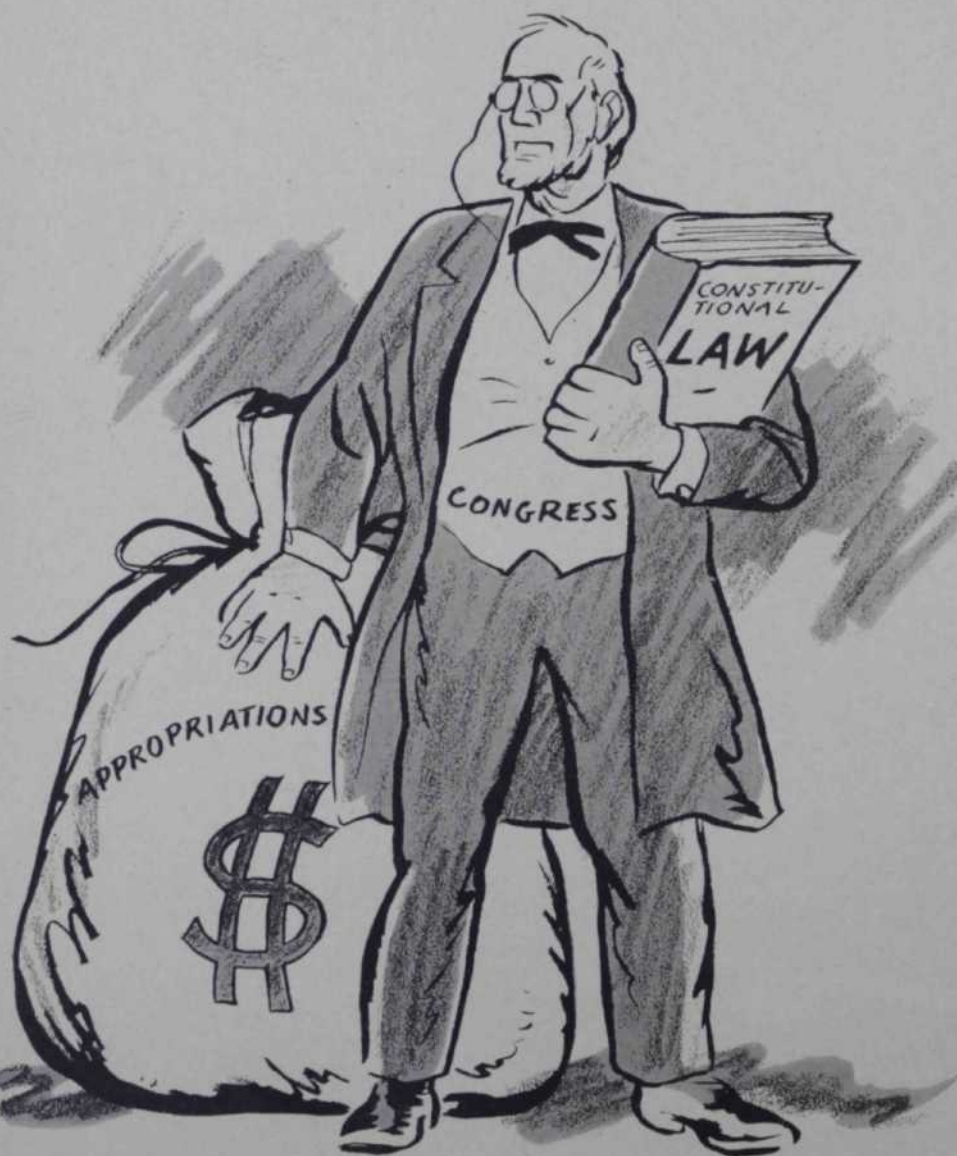
Second, Congressmen, under huge blank check appropriations to the Executive, are afraid to vote their honest convictions too often. Party bosses telephone to the members from the big cities how to vote. The boss trades off the vote of his delegation for a new project for his city.

"Theirs' not to reason why, theirs' but to answer aye."

The cure to all this, of course, is to elect a constitutional Congress which will reclaim the sovereign power of the purse.

Third, for the first time, I believe, in American history the Executive has boldly assumed the right to tell the voters whom to nominate or elect to

(Continued on page 91)



The cure is to elect a Constitutional Congress that will reclaim the sovereign power of the purse

FOOD

MORALE

PLANES

WASTE-PAPER

SHIPS

GUNS

STEEL

SPEED ★

OIL

TANKS

PROPAGANDA

WHAT HAVE YOU

} WILL WIN THE WAR!



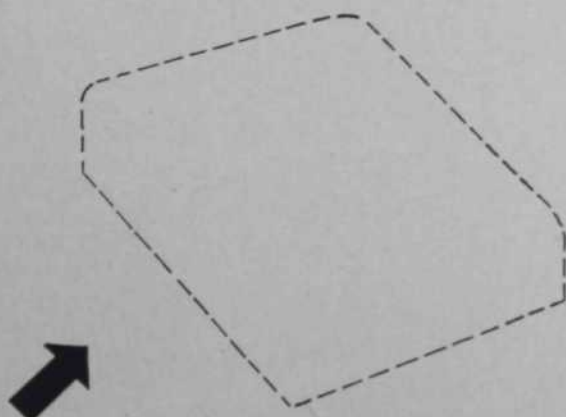
SLOGANS to the contrary, of course, no one thing will win a victory over totalitrranny.

But in the list above, we naturally concentrate on *speed*. Because the Comptometer adding-calculating machines we make are famous for that very timely quality.

And today, when all of us are racing against time on the production front, Comptometer machines and methods are key weapons in Management's arsenal . . . *particularly on payrolls and costs.*

Because the whole figure-work picture has been drastically revised by war, with many concerns going on multiple shifts of clerical help, your local Comptometer Co. representative is prepared to suggest ways in which your present Comptometer equipment can be better adapted to meet your new problems.

Telephone him . . . or write to Felt & Tarrant Mfg. Co., 1712 N. Paulina St., Chicago, Ill.



This is where we'd ordinarily put a picture of the Model M Comptometer. Because these extraordinary times emphasize the importance of COMPTOMETER METHODS so strongly, we've omitted the machine in an effort to call your attention to that emphasis!

COMPTOMETER

REG. U. S. PAT. OFF.
ADDING-CALCULATING MACHINES AND METHODS



Cities are demanding that there must be an end to frills and nonessentials in Government

Luxuries in Government Must Go

By GEORGE MORRIS

THE GOVERNMENT asks for elimination of nonessentials in industry. Citizens ask that Government do the same

ASK this question of any one you know—student, workman, doctor, banker, storekeeper or housewife—"What did Pearl Harbor mean to you?" and you will get this answer:

Business as usual, life as usual is out for me until this war is won.

There is no objection, no resistance, hardly a wish to have it any other way.

Lives, fortunes, comforts, conveniences and necessities all may go and no citizen will whimper. Even before December 7, 1941, each was waking, in his own way, to the fact that, if we were lucky to keep out of war itself, the National Defense Program held the same meaning.



Every dollar spent should go to help fighting men return with victory

What is more natural, then, than the growing demand by these same common sense citizens that, until the war is won, there must be an end to government as usual, not essential government, but to the frills and the luxuries? Above all, what is more natural than an insistence upon an end to the social experiments, the uplift movements which have been called reform; that bullets should be the symbol of governmental expenditures, and the men behind those bullets the symbol of the Nation's man power?

There is plenty of evidence that the war could be won more easily were it not for the uselessness, extravagance and waste of



If the Maestro
had been a
distiller

What, music-making akin to whiskey-making? Yes, sir.

So much so that if the Maestro had chosen to create harmonies of *taste* instead of *tone*, we'd have him on our payroll as a blender!

For his magic with the 88 notes of his piano is very much like our method of producing that magnificent whiskey you know as Calvert.

From our 253-note "keyboard" of rare blending stocks — composed of 151 aged whiskeys and 102 mellow grain neutral spirits — we select har-

monious chords of flavor, bouquet, smoothness — of *all* desirable whiskey qualities.

Then . . . we weave these chords into one glorious drink that thrills your palate as a great melody thrills your ear. The result is the masterpiece called Calvert Whiskey.

Yes, and just as almost every man responds to something in a musical masterpiece, so Calvert

strikes a responsive note on almost every tongue that savors it.

For Calvert is a unique combination of all the qualities most people appreciate and prefer in a whiskey.

We're not guessing at that. We know. Because in this broad country of many tastes and preferences — more people buy Calvert* than any other luxury whiskey.

Calvert

The Institute of Blends

Calvert Distillers Corp., N. Y. C. BLENDED WHISKEY 86.8 Proof.*Calvert "Special": The straight whiskeys in this product are 4 years or more old. 27½% straight whiskeys, 72½% grain neutral spirits. Calvert "Reserve": The straight whiskeys in this product are 5 years or more old. 35% straight whiskeys, 65% grain neutral spirits.

many of the multitudinous federal agencies; that it can possibly be lost if they are permitted to continue.

A committee headed by Senator Harry Byrd, Virginia, has torn the mask off the Farm Security Administration, the Works Project Administration, National Youth Administration, Civilian Conservation Corps, Office of Civilian Defense and other administratively top-heavy agencies. Senator McKellar of the Appropriations Committee has introduced bills to abolish some of them, recommending appropriations sufficient only for their liquidation, and has sponsored sharp curtailment of the appropriations for others.

The objection to these agencies is two-fold:

They cost hundreds of millions that should go into expenditures for war.

They require the services of thousands who should be employed in production for war.

N.Y.A. costs \$91,767,000 a year. The average cost for training youth for defense work in vocational schools is \$23. Under N.Y.A. the cost is \$167. Training in public schools requires six weeks. Under N.Y.A. training drags on for three months or more. A N.Y.A. sewing project in Maryland used 500 gallons of fuel oil a week for heating. After

more than a year of operation, it succeeded in placing ten girls in private employment. Publicly, N.Y.A. boasts that "last year over 450,000 N.Y.A.-trained youth went into jobs in private industry."

Privately, N.Y.A. was so alarmed over desertion from its ranks that it sent out solicitors on commission to bring in recruits. Many were enticed away from jobs by offers to pay them for learning to work.

No longer a relief agency

C.C.C. has cost \$2,257,620,000. The present enrollment is 108,000. It insists that the public had an entirely wrong impression of the purpose in establishing the C.C.C. in 1933. Director McEntee explains:

In the minds of some people the Corps is a relief agency for which a need no longer exists. The Corps in its early days did a great relief job. Let me say, however, the Corps never was a relief agency from the standpoint that the men enrolled in the Corps are put on made work to give them something to do.

In other words, billions were spent on C.C.C. in depression days on the pretext that it was a relief agency. Now that there is no excuse for relief, it is insisted that it never was a relief agency. The idea is to take which-

ever side is better suited to getting an appropriation.

The Byrd Committee is not impressed by the argument that C.C.C. and N.Y.A. are essential to the war. It recommends that, if training in defense work is necessary, the work should be placed in the hands "of some suitable agency." It recommends further that unspent funds appropriated for C.C.C. and N.Y.A.—some \$132,000,000—be returned to the Treasury.

W.P.A. operates on a budget of \$875,000,000. W.P.A. was created when able-bodied men, willing to work, could not find jobs. Now there are more jobs than workers. The Byrd Committee generously recommends that the budget be cut in half. The explanation for not recommending that it be abolished entirely is because of the possible hardship on workers transferred from normal occupations to war work.

For years the Farm Security Administration—a \$1,000,000,000 agency—was reported to be doing a miraculous job in rehabilitating distressed and down-trodden farm workers. Under a system of operation, which the House Appropriations Committee describes as "experiments in collective farming under a plan which appears to resemble the practice of collective farming in

(Continued on page 90)



BLACK STAR



A. F. SOZIR FROM GENDREAU

The public demands that every cent of Government must be spent for providing tools and equipment for war. Boondoggling relief was created when there were more men than jobs. Now there are more jobs than workers



VICTORY

has been given a *New* number!

Industry has been handed a new victory schedule . . . the 168-hour week.

It calls for a 25% increase in vital war production—a goal that is only possible if most of our machinery and tools work 24 hours a day, 7 days a week.

The pressing problem of management is to get more out of these tools, on all shifts, in the face of a growing scarcity of trained men and new machinery.

Many executives in war industries have already discovered the aid they can get from better lighting, in this emergency. Increases of 3% to 25% in production have been reported by many factories where nothing but modern lighting was added.

Here are a few case histories . . . "A 4% reduction in spoilage, an increased output of 8%" . . . "Typing increased 12%, billing machine production up 7%" . . . "15% less time to make settings and adjustments."

To help you get more out of the lighting in your plant for war work, General Electric offers a free advisory service. G-E lighting specialists will be glad to work with you, searching for bottlenecks which improved lighting can open up.

Many times it needs only a simple change to make a big improvement. Such things as: Removing glare from a workman's eyes . . . getting extra light by cleaning bulbs and fixtures on a regular schedule or by repainting walls and ceilings . . . right-size bulbs in present fixtures . . . supplementary lighting over machines. New lighting installations are recommended only when other methods are inadequate.

If you have anything to do with managing a war material factory, won't you avail yourself of this free advisory service? Just 'phone your local G-E lamp office or write General Electric, Nela Park, Cleveland, Ohio.

On the Home Front:

Electricity and eyesight are both vital in today's emergency. Don't use them wastefully. Don't leave unnecessary lights burning; but be sure when folks in your home read, sew or study that they have enough light to guard their eyes from strain, conserve their energy.



G-E MAZDA LAMPS
GENERAL  ELECTRIC

MAZDA—not the name of a thing but the mark of a Research Service



Washington



and Your Business



Eight Months to Go

IN the War Production Board's cavernous building, the underlings say that in another eight months the country will be in full war production. By then we will have learned this new business of war. Every machine in the country will be producing truly essential things and nothing else:

The greatest industrial nation in the world will have turned in its tracks.

In 60 days there will be no more durable goods industry. That's just a sample of what's coming. If we can spend \$40,000,000,000 in 1942 we can spend \$70,000,000,000 in 1943. W.P.B. figures.

Listen to the Reflectors

THE underlings—reflectors if you like the word—are under no compulsion to be brisk and hearty. They know what their chiefs really think and laugh at some of the things they say. They think a good deal of the early hysteria is being pressed out. Not so much attention being paid to men who have ideas unless they are good ideas. After eight months we will have all the food we need but not all we want of all the kinds



we like. We will have sound roofs, hot water and heat, decent clothing with a fair percentage of wool, sufficient but not comfortable transportation. These things have all been said before but they bear repeating. Mamma will go short of electric gadgets, but she will get bobby pins, stockings, face paint and hairdos. These things are regarded as necessities if they can be provided, because when Mamma's morale begins to slip Papa may begin to lose sleep.

Big Shots Can't Say These Things

NELSON and Batt and Wallace and Rockefeller and the rest of the big shots feel they are under compul-

sion to shape their words. Nelson would not say outright that the censorship applied to our industrial output is silly as a spring lamb. Men who know what Nelson thinks use bad words about it:

We are not turning out as many planes and tanks as we should. But we are doing so much better than we thought possible and the rate of increase is so incredible that we would do well to tell about it.

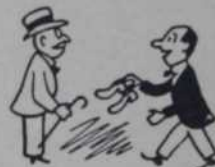
They mean in hardpan figures. The enemy is doing all he can and could do no more if he knew the truth. Speaker Rayburn defied the O.F.F. and the Censorship Office and the O.G.R., etc., and told the world we are turning out 3,600 planes a month. No harm resulted. Maybe he'll set a fashion.

The British Are Realistic

MEN in the Joint Munitions Board say we owe a debt to the Englishmen over here to get lend-lease materials.

"We are a sentimental lot," they say. "If we had been left to ourselves we would have given away our shoes."

The Englishmen are such stiff bargainers that they set up resistance in their opposite numbers. No hard feelings, mind you. Business on both sides, which is as it should be. The English look ahead to business after the war more frankly than the Americans.



No One Would Believe This

THE examiner for the Civil Service Commission talked of the flood of job-hunters the C.S.C. deals with:

Now we're simplifying the examinations. We show an applicant a typewriter, a washing machine, and a vacuum cleaner, and tell her to name them. If she recognizes the typewriter she gets the job.

How the Wind is Blowing

CONGRESSMEN, government officials and radio commentators are getting letters by the bushel. Few are vituperative or show political bias. The tone is:

Let's get ahead with the war. Lick the Japs.

Complaints are that Washington is playing politics, continuing to pursue its social aims, warring against business and unbearably extravagant. N.Y.A. and C.C.C. come in for a shelling. Aubrey Williams and Harry Hopkins are special targets. Few criticize the President's foreign policy, but many complain they do not know just what it is. They are not interested in world reform. They think the Administration should be tougher. Too many speeches and too vague.

Hopkins is a Sick Man

WORD is that if Harry Hopkins—who is unquestionably the President's nearest adviser—were to ease up a bit he might regain his strength. But he is almost furiously interested in what is going on and never willingly misses a meeting of the lend-lease board. Observers think his very precarious health is suffering. His visit to London won't help.

Some Specific Complaints

LETTER-WRITING farmers have had bitter things to say of the government economist who wrote a book about nudism. That sort of thing isn't liked down



Time is the most critical material !



TIME CAN'T BE BOUGHT BUT IT CAN BE SAVED

Surging through thousands of shops and plants there's an unbeatable determination to win Victory, and win it in shortest possible time. • TIME!—that's the vital element. Even fractions of minutes are precious. Seconds lost by one machine, multiplied by many machines, result in wasted days and weeks—even months. Such time waste is a dangerous enemy at our door. • Consider procedures in production and you'll find that operations revolve around paper work routines. In effect, they help to control production, and this control can either SAVE time or WASTE time. • To simplify and organize paper work routines . . . to decrease non-productive time, prevent costly mistakes and diminish expensive wastes . . . to facilitate accuracy in determining costs . . . these are the functions of Addressograph-Multigraph methods.

USERS OF OUR PRODUCTS are entitled to the services of our Methods Department. It can help to extend the use of their equipment in Purchasing, Storeskeeping, Production, Marketing, Shipping, Billing, Collecting, Disbursing and all key operations of business. To those who are interested in up-to-date information on better methods it is available on request, without charge.

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Addressograph-Multigraph Methods SAVE BRAIN HOURS AND HAND HOURS

on the farm. Stephen Raushenbush's quoted statement that "one man in a government department" could do more to control industry than 100 men outside turned the fire on him. Mrs. Roosevelt's decision to take the summer off met with hearty approval from many. A pointing up of Army and Navy leadership is often asked. This is often tempered by an admission that, if the writer knew what is being done, he might not be so critical. Every published story about red tape in Washington sooner or later is registered with some one. Business men continue to be angry over delays, excuses, and incompetence. Business chiselers and union racketeers catch very special lacings.

Straws in the Wind

THE Communist Party made a written offer to clean up the labor mess on the docks. . . . No one but the Communists liked it. . . . Extraordinary feature of the Supreme Court's decision that mutiny is mutiny, even if a ship is tied up, is that four of the nine justices dissented. . . . That has been sea law ever since sails were invented. . . . Labor leaders say the suggestion that the Navy sign merchant seamen at navy pay and take control of merchant shipping is an almost perfect way of making trouble. . . . The reason why the German and Italian diplomats, now comfortably interned in the Greenbrier and other luxurious hotels, have not been sent home is that no ships are available. . . . Diplomats are not worried. They occupy single rooms at ten dollars and suites at \$35 a day. . . . Monthly cost to the Government \$450,000. . . . U. S. will send home German and Italian diplomats now interned in Latin American countries when ships are found. . . . Partly a Good Neighbor's gesture and partly good business. . . . Secretary of State Hull has sent word from Florida that his croquet ground should be put in order. Sign of convalescence. . . . Bill pending in Congress gives I.C.C. authority to change state laws governing size and weight restrictions on trucks. . . . State line differences have bottlenecked war freight. . . . You can buy sugar for a bee without a ration card, if you have a bee. . . . 3,550 investigators now checking up on priority violations.



Decentralization or Federalization

TEN or more government activities—the S.E.C., the F.D.I.C., the R.E.A. etc.—have been sent away from Washington either in whole or in part. At first it looked like decentralization:

"Really it's federalization," observers say. "The federal Government is edging in on the states. The R.E.A., for example, will be able to play more of a hand in western politics in its new location in St. Louis than it could in Washington."

Doubters are urged to examine U. S. Senator Kenneth McKellar of Tennessee. Mr. McKellar is the nearest friend of Edward H. Crump, the boss of Memphis. Between them they controlled the state politically, one year and another. T.V.A. set up a seven state empire—Crump and McKellar challenged it—and T.V.A. won.

Secretary Ickes has made eight attempts to compel San Francisco to sell its Hetch-Hetchy power the way he wants it to and has been defeated eight times. But he only needs to win once. The Bonneville and Grand Coulee dams are playing their part in northwestern politics.

Read It and Weep

THE National Power Resources Committee issued a handsome 55 cent volume in which was covered its plans for the future. Practically everything is to be done either by the federal Government or by its aid and direction, from watershed management, flood control, hydro-electric power on all the rapid waters, education, grazing, forestry. All of these things should be done, no doubt, but the point is that, if the federal Government does them, with the aid of the 50 agencies of which the N.P.R.B. writes, the states will be more or less hogtied. Four billions of fresh spending money are involved. This fact can hardly have escaped the attention of Senator McKellar when he tilted with T.V.A.

The report further states that, under recent legislation, certain federal activities may be pursued without intruding on "the areal or functional" powers of Congress. That isn't double talk, either. More on the order of a gloat.

Rubber Wheels Within Wheels

WHEN Commerce Secretary Jesse Jones told a congressional committee that the reason why we have not a larger stockpile of crude rubber is that:

The English-Dutch combine refused to sell us all the rubber we wanted, before Pearl Harbor. . . .

He might have gone a bit farther. He might have said that the reason why he was not permitted to spend plenty of money for the setting up of synthetic rubber plants instead of a niggling \$25,000,000 was that the English lend-lease officials protested. They did not want synthetic plants which could compete with their own raw rubber after the war. If Mr. Jones had known how much power the acid New Dealers would be able to shear from him, he might have said it.

Thinkers are Still Thinking

DONALD NELSON'S super brain-trust seems not to have produced any great thoughts as yet. Nelson isn't worried. He has had enough of the hot-and-bothered thinkers who catch a big idea at lunch and issue a "directive" at three o'clock if they are not stopped. He has perfect confidence in his thinkers and believes that, when they get a-going on the assembly line, it will fairly whiz.



Out of the Grab Bag

IN Washington they say nowadays that a slicker is "smoother than a Henderson tire." . . . Admiral Emory S. Land, head of the Maritime Commission, is not bothered by doubts. . . . "Before the end of the summer," says he, "the Commission will catch hell." . . . U. S. Rubber Company wanted to buy four of the 364,000 tires it has in a Henderson freeze to put on a truck. . . . The rationing committee ordered the old tires retreaded instead. . . .

Secretary Morgenthau heartily fretted because Leo Crowley of the F.D.I.C. was made Alien Property Custodian. He thought he might at least have controlled the \$7,000,000,000 alien cash. . . . F.D.R. thinks Crowley is an ace. . . . The Inventors' Council in the Department of Commerce is reported to be really getting places. . . . But its members will not talk. . . .

Accidents Help The Enemy



If your company, like many others today, is suffering increased industrial accidents due to green labor and rapidly expanding production, you will be interested to learn what Lumbermens safety engineering service is doing for its policyholders.

This service costs nothing, pays much in reduced accidents, lowered insurance costs and increased profits.

The careless accident that "just lays a man up for a few days" may keep a skilled mechanic off a job vital to your country.

Accidents today cost more than money can pay for. They cost time—when our country needs every hour of every workman's time as never before. A few days off the job means a few days off America's Victory schedule.

No insurance in the world can make up for the work an injured workman might have done, but the expert safety work that goes along with good compensation insurance can help reduce accidents. Besides it's only smart business to let a

sound insurance company pay your compensation liabilities.

Lumbermens and its affiliated companies under Kemper management write all forms of insurance—excepting life insurance.

Your Lumbermens agent is qualified to assist you with your insurance problems. If you do not know his name, write: James S. Kemper, President, Lumbermens Mutual Casualty Company, Mutual Insurance Building, Chicago.

Lumbermens

MUTUAL CASUALTY COMPANY

JAMES S. KEMPER, President

Home Office: Mutual Insurance Bldg., Chicago

Operating in New York State as (American) Lumbermens Mutual Casualty Company of Illinois

**50% REDUCTION
IN ACCIDENTS WOULD SAVE
ENOUGH MAN-HOURS TO BUILD**



10 BATTLESHIPS



330 SUBMARINES



**22,000 MEDIUM
BOMBERS**



100 DESTROYERS

Accidents robbed American Industry of 460,000,000 man-days in 1941. The 1941 traffic toll alone, of men between the ages of 20-45, accounted for more than 10,000 workers... enough for a full Army division.

Take It and Like It

BRITISH complained that the pork we are sending them under the lend-lease plan is too fat. . . . Agriculture Secretary Wickard said American farmers could not afford to underfeed hogs and the British could take our pork and like it. . . . Youngster who was not caught in the draft tried to enlist. The Flying Arm would not have him. The Marines turned him down. His feet were flat. The Army took him. Now he'll carry a pack. . . . Not likely that Sidney Hillman's plan to draft labor will be ordered before election is over. . . . Perhaps not then. Some congressmen inclined to turn Mr. Hillman over and see what's underneath. . . . Census is doing a good job of tabulating industrial facts for the army. . . . Fewer square pegs will be hammered into round holes in consequence.

Spot for Mr. Johnson

GOSSIP is that Louis Johnson—once head of the American Legion, once Assistant Secretary of War, once the author of the most devastating criticism of A.E.F. world war methods—is on a spot as the President's "personal minister" in India. If he is suspected of favoring Indian independence he will find the British lion on his neck. If he throws his weight to the British there will be outcries at home.

If he tries to spread his oil on the troubled waters of both sides neither will like him. It might be observed, however, that Mr. Johnson's deck is usually full of aces.



Progress of the War

SOME military authorities believe that Russia can stand Hitler off through the summer, with what aid the U. S. and England can send. They think he cannot face another winter war in Russia. They do not expect the war will be ended before 1944 under any conditions. Regarded as likely that Japan will strike at Russia in Siberia and so compel Stalin to fight on two fronts. But in that case the prospect is that we will strike at Japan by air from bases in Russian territory. We would have had planes based there long ago except that Russia blocked them. She does not want to provoke Japan until she is plenty ready.

Attention the Supreme Court!

THE Supreme Court ruled that a teamsters' union in New York City was within its rights when it held up trucks at the entrance to New York's Holland Tunnel and made their drivers pay \$9.42 for the services of a union man. Justice Harlan Fiske Stone called this:

Piracy. Hijacking.

Not long ago the Navy Department wanted to ship some heavy machinery from a plant in Rhode Island to an embarkation point. The Government could not

hire a truck, because a strike was on. It was finally forced to commandeer a truck. At the Holland Tunnel the union pickets made the Government unload that commandeered truck because it was "unfair." The machinery was loaded on a union truck. Hours of invaluable time were wasted.

Madame Secretary of Labor Perkins might be interested, too.



What Price the Wagner Act?

THE National Labor Relations Board marched into the elegant marble home of the Supreme Court recently and met itself marching out. Or if it did not then something happened which the common or warehouse citizen finds difficult to savvy. Not long ago union men beat up non-union men who thought they had a right to hire out without paying tribute to the racketeer baron on the hill. The Supreme Court ruled in effect that little disorders of that sort are inseparable from the business of unionizing. In another case, referred to in another paragraph, the Court ok'd the union thugs who held up non-union drivers at the Holland Tunnel.

After weeding out all the legal honeyfugling the basic idea stands out clearly.

Now the Court has ruled by a five to four score—Byrnes, Frankfurter, Jackson, Stone and Roberts vs Reed, Black, Douglas and Murphy—that if union men get tough with non-unionists they *may* run the risk of losing some of the advantage of the N.L.R. Act, especially those relating to the reinstatement of strikers. The five-man wing of the Court said, among other things:

"Frequently the entire scope of congressional purpose calls for the careful accommodation of one statutory scheme to another and it is not too much to demand of an administrative body that it undertake this accommodation without excessive emphasis upon its immediate task."

President Roosevelt, years ago, used to complain bitterly of the five to four decisions of the Court. But it must be that the judicial mind works that way.

No Wonder Taxees Write Letters

CONGRESSMAN Wigglesworth observes that eight agencies function in the field of priorities, 12 agencies in housing, and 11 in various training programs.

The federal Government owns and operates 19,700,000 square feet of office space in Washington and rents 5,975,000 square feet in addition.

That is, very roughly, about 600 acres.

Some of the Odd Kinks

YOU can be buried legally in a gold or silver casket, but not in a coffin of any other metal. . . . De-cuffed pants will bring the quick blush of shame to wives who have been proud of their husbands. . . . Cuffless pants should be shaped over the instep and bound with tough tape at the heel. . . . There may be a shortage in baby nipples. Needed in airplane factories for something. . . . We'll be saving fats for soapmaking, as Grandma used to do. Remember the ash hopper out in the lane? . . . Lawn grass will grow higher. Lawn mower production cut. . . . Also we'll swat flies with newspapers. No more steel swatters. . . . It's hard to be delicate about this, but cuspidors are out. . . . So are chambers and chamber covers of the enamelled kind. . . . Brassiere hooks are done for. Comment is invited. . . . Corset clasps go, too. . . . And metal garter trimmings. . . . Fortunately, there will be plenty of nails. . . . An association of small loan bankers heard that loans on cars should be based on tire value. . . . More hemp seed to be grown. More marijuana. Whoopee!

Herbert Corey

War Workers...

5400 horsepower Diesel-Electric freight locomotive powered by four 16 cylinder 2-cycle Diesel engines. Made up of 4 sections it measures 193 feet and can handle a 100 car train, weighing 5000 tons.

Trainloads of soldiers . . . trainloads of tanks . . . trainloads of ammunition. The railroads are doing a big job these days.

Texaco has long served the railroads and has pioneered in most of the improvements in railroad lubrication products. In fact — today more Diesel horsepower on streamlined trains is lubricated with Texaco than with all other brands combined.

Texaco more than meets the exacting demands of the railroads and of all industry with products that have gained leadership in many fields.

Trained Lubrication Engineers, available from more than 2300 Texaco Distribution Points, will gladly assist in the selection and application of the proper Texaco Lubricant to meet your particular requirements.

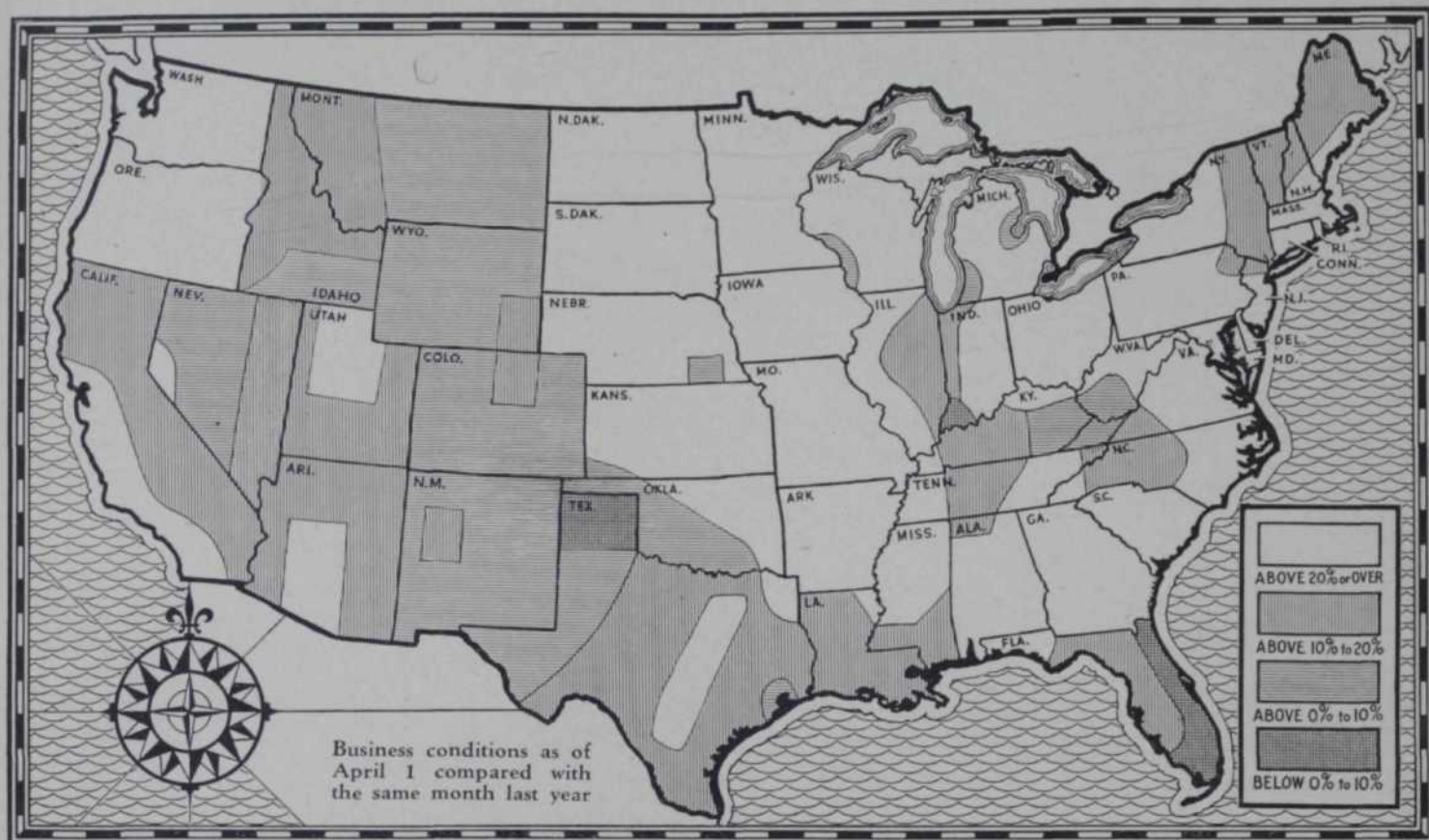
THE TEXAS COMPANY

—in all
48 States



The MAP of the Nation's Business

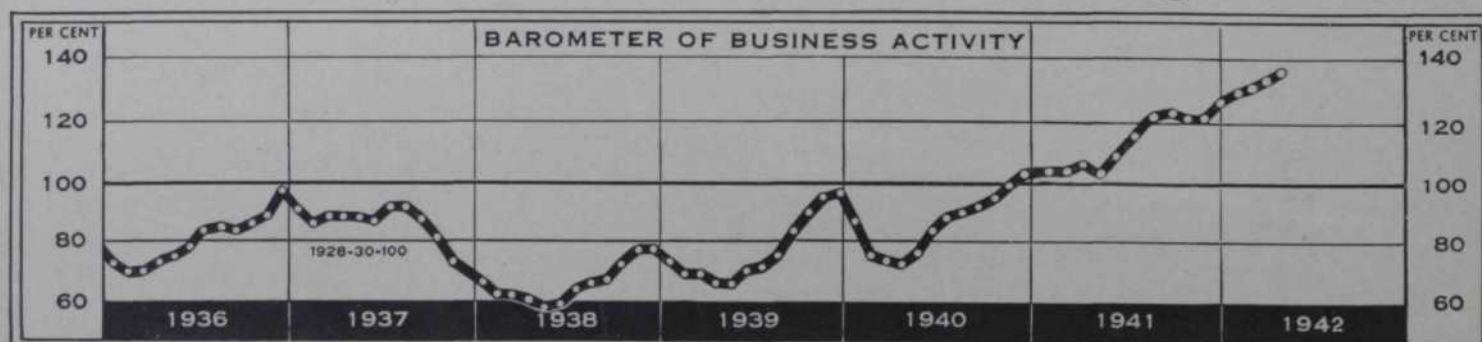
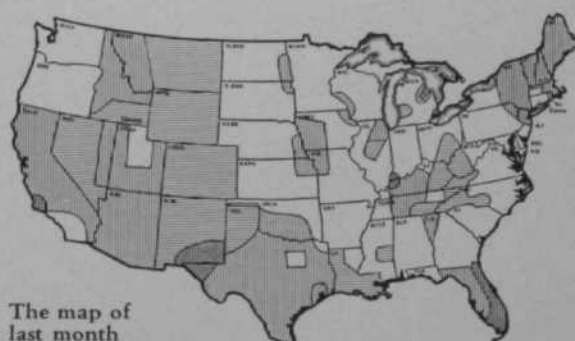
By FRANK GREENE



INDUSTRIAL production advanced to new high levels in March under the stimulus of the war effort. An improved scrap situation raised steel operations to 99 per cent of capacity with record production. Conversion of additional industries was rushed to meet munition quotas with surprisingly brief unemployment in the process. Carloadings declined in coal and merchandise traffic while tanker losses cut oil production nine per cent. Engineering awards rose 15 per cent above February and electricity output held its gains over last year.

Commodities reached 1928 levels following further food price advances. Twelve-year peaks were set in cotton prices with mills operating at capacity. Stock markets declined for the eighth consecutive month with quotations at nine-year lows. Dollar volume of department store sales increased 26 per cent over March a year ago, aided by an early Easter. Bank transactions rose nine per cent.

The Map records increases in consumer purchasing power in widespread areas, resulting from the rising war effort



Reflecting the stepping up of the conversion process of non-defense industries to war production, the Barometer chart line continued to move sharply upward during the first quarter, reaching a new all-time peak in March

Name Calling Builds No Guns

THURMAN ARNOLD, Assistant Attorney General, recently told the Senate Patents Committee that national-international cartels often based upon present patent laws had divulged military secrets to foreign nations which are now enemies of this country, had restricted development of vital war industries and had hampered production and distribution of many necessities of life.

A war-time patents bill is now before the committee. Mr. Arnold calls it a "useful stop-gap" which "does not attack the fundamental problem because it does not go far enough."

Too many changes in laws

SINCE we have gone through a 12 year period when all laws affecting business or the individual were subject to change, Mr. Arnold's idea might be regarded as just another of those things except:

The country is at war!

America, a highly complex industrial country—now—all-out for production—depends upon discoveries, patents, and agreements for efficient functioning. This is no time to pile confusion on confusion. Above all, this is no time to approach a change in the patent laws lightly. Patent law and industrial processes based on patents are a subject for unexcited experts. It is certainly no subject for a nation involved in the crisis of war.

To make a dramatic case for this proposed new law, Mr. Arnold's department has been running a legalistic sideshow on Capitol Hill. A constant stream of industrialists has been hauled before Senate committees which use the well-known procedure based on variations of the old question "When did you quit beating your wife?"

Pilloried by committee

AMONG those called was the Carbonyl Company, General Electric subsidiary, makers of tungsten carbide, hardest of all cutting materials except diamonds.

The company is charged with creating a bottleneck in the production of machine tools because of an earlier agreement with the Krupp interests in Germany. The resulting news stories followed the usual pattern as the testimony moved into channels certain to produce spectacular and confusing headlines.

When he attempted to get his own



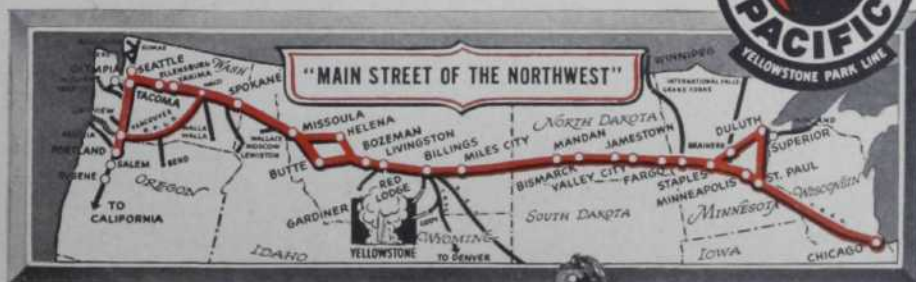
How many beets do you take in your coffee?

Technically, the sugar on your ration card is "sucrose".

Some of your supply comes from cane grown in Cuba, Puerto Rico and Hawaii, some from our southern states. But for a good share of this same sweet substance, sucrose, you can thank the sugar beet grower. Chances are, *his* sugar is sweetening your coffee.

In states served by Northern Pacific, thousands of acres of this valuable crop help make America self-sufficient. Every fall, Northern Pacific hauls nearly a million tons of beets to processing factories, then moves the sparkling crystals of the finished product to table via the "Main Street of the Northwest".

R. W. CLARK, Vice-President—Traffic, St. Paul, Minn.



NORTHERN PACIFIC RAILWAY





PILOT SAFE!

Anti-aircraft fire seldom makes a direct hit. But a chance shell fragment can be just as disastrous. That's why pilots carry all possible safety equipment, especially a parachute... "just in case."

These are dangerous days for business pilots too... days when every manufacturer and wholesaler needs safety equipment against unexpected events.

Your normal safeguard against credit losses is your efficient credit department. But the abnormal credit risks of these ominous days place an added strain on even the finest and best-equipped credit departments. The War is causing changes overnight... changes which may seriously affect your business... or the business of your customers... which may cause severe credit losses.

The best protection against severe credit loss is AMERICAN CREDIT INSURANCE

An *AMERICAN CREDIT* policy is the strategic defense employed by thousands of manufacturers and wholesalers to protect working capital and profits against unforeseen credit losses. *AMERICAN CREDIT* guarantees payment of accounts receivable... guarantees reimbursement for losses caused by the insolvency of customers.

Write Dept. N-5 for your FREE copy of our new brochure "*The A-B-C of Credit Insurance.*"

point of view before the committee, W. G. Robbins, Carboly president, was invited to "sit down or leave."

Believing that the cause of defense would be best served if the public was permitted to hear both sides of the story, *NATION'S BUSINESS* invited Mr. Robbins to answer some questions:

Obtained vital patents

QUESTION: Did you have a patent agreement with the Krupp interests?

ANSWER: Yes. Because General Electric appreciated the possibilities of tungsten carbide and obtained ownership of the vital patents then owned by Krupp, the Government and war industries can now obtain all the carbides they need. If we had not done so, the United States would have been at the mercy of German sources of supply just as England was at the outbreak of the war. Fortunately, Carboly had the production capacity at that time—and still has—to ship enormous quantities of carbides to England in addition to meeting United States requirements.

QUESTION: Have you restricted, or are you now restricting, the production of tungsten carbides and thereby slowing up the war effort?

ANSWER: No. The facts show that, in 1938, there were some 97 manufacturers of Carboly tools in the United States and at no time were all carbide manufacturers under license or price control. As far as the present patent relationship with Krupp is concerned, there just isn't any. Anybody can make carbides.

QUESTION: Is there a scarcity of tungsten carbides?

ANSWER: There is no scarcity and there has never been any. Carboly has been able to take care of every United States order and, in addition, has also been supplying England and Russia since 1939.

QUESTION: If there has been no scarcity and there has not been a monopoly, did your company maintain high prices?

ANSWER: Carboly Company has made six price reductions in spite of the fact that it was continually operating in the red.

QUESTION: Is it true that the price had never been under \$200 a pound until your company was indicted and that it then dropped to \$48?

ANSWER: As a matter of fact, Carboly had been available at less than \$48 a pound for a year before the indictment.

QUESTION: Was this material available to the War Department and government arsenals?

ANSWER: For years Carboly and General Electric have been working closely with the War Department and government arsenals. For years there

J. F. McFadden, President
First National Bank Bldg., Baltimore

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49 YEARS IN BUSINESS



"Guarantees Payment of Your Accounts Receivable"

have been available machine tools designed to employ these fast-cutting carbide tools.

QUESTION: Have you done anything to increase its use by industrial training?

ANSWER: In one two-year period, long before the war, some 10,000 workers in industry were given training courses on the use of these tools.

QUESTION: We understand that you are indicted for monopolistic practices. Is that true?

ANSWER: Yes. A hearing has been set for June 15 before the proper courts. Certainly I have the right, as an American citizen, to say that I shall not be smeared before trial by the official prosecutor of my case, either in a Senate committee hearing or elsewhere.

QUESTION: Is there anything else you would like to tell NATION'S BUSINESS subscribers?

ANSWER: We are engaged in an all-out war effort. The time and effort of every individual should be vitally concerned only with this. It is hard for a man to keep doing his best when he and the company he works for are constantly being unfairly attacked. Isn't it about time we ceased bickering and fighting among ourselves? Isn't it about time we stopped trying to break down our morale?

Mr. Robbins rests his case before 363,000 of his business peers.

New Name for Bonds

WAY BACK in March, the Treasury decided to change the name of *Defense Savings Bonds* to *War Savings Bonds*. But it won't be official until the new fiscal year begins July 1. Meanwhile, the Government Printing Office continues to turn out hundreds of thousands of posters, pamphlets and albums for *Defense* bonds.

Could nothing stop the print orders on the outmoded forms?

Not before the change becomes official in July! Then there will be a hurry-up order some Friday for 10,000,000 *War Savings* posters—to be delivered at 9:30 Monday morning. Later the Joint Committee on Printing will decide what to do with those several carloads of waste paper—printed in three colors.

When You Change Your Address

... please notify us promptly. Your copies of *Nation's Business* will then reach you without delay and without interruption.—NATION'S BUSINESS, 1615 H Street, N.W., Washington, D. C.



Maybe last year this Bullard Mult-Au-Matic was machining hub caps, flywheels or clutches for your car. Today, it and hundreds like it, have been converted to war production—shells, airplane engines, tank parts. This ease of conversion is one of the reasons for Bullard popularity.

If you decide your machining methods and select your machine tools for flexibility, you'll choose Mult-Au-Matics. You will have equipment instantly adaptable to changing war requirements, and equally ready for peace when the time comes to resume your former operations.

THE BULLARD COMPANY
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BULLARD

What's Your Place in the War Effort?

(Continued from page 24)

who may be drafted as enlisted men is not yet quite clear. The Selective Service Act says they will be called according to their number just the same as younger men, although arrangements may soon be made to call them according to age groups. What will happen to them after they get into the Army is still a guess. There are a great many prominent, capable and highly successful citizens in the entire 35 to 45 age group. A great many have sufficient income so that their families are independent and they will have no claim to deferment for dependency. They are not worth as much for fighting purposes as younger men. Older men can't sleep in the mud, get up the next day and wrestle a machine gun with the same agility as men in their twenties. What will happen to them?

Best guess is that most of those with proven ability in civilian life will end up in administrative and clerical jobs at non-com's pay, from \$50 to \$70 a month. That doesn't mean that they will necessarily be out of the combat zone. Every regimental and even divisional headquarters has a mass of paper work to handle. There is a great amount of administrative work to do in looking after supplies. There will be a regimental post office. The chaplain needs assistants to

help handle affairs of wounded men. There is a tremendous maze of detail work just behind the lines that requires administrative and organization ability. With the air corps increased to 2,000,000 men, thousands will be needed for administrative duty at air bases. Many men in the upper age brackets will find their assignment in these positions. And there is always the possibility that if the Army goes over 8,000,000 more older men will be required for actual gun toting.

At present no man over 45 can be drafted for military service, but Congress can act in a hurry if the need arises for more soldiers. Many German reserve regiments doing police duty are oldsters. The Landwehr, similar to our own National Guard, is made up of men between 35 and 45. Many of them have already seen front line action. The Landsturm, made up of men over 45, is being used extensively for guard duty in occupied countries. The French had several reserve divisions made up largely of World War I veterans, and the English today have part time soldiers—men who work at their regular vocations or in production plants one part of the day and at soldiering another part. England is banking on them to help stave off invasion when Hitler strikes.

One organization already under way is planning to use older men exclusively. That is the provost guard for police and anti-sabotage duty. It will be used to guard plants, bridges, vital centers and prevent sabotage. There may be as many as 80,000 of them—perhaps more. Officers in this unit feel that older men can do the job better than youngsters. It needs men with investigating experience such as lawyers and credit managers to head up the various units. If you have ever wanted to be a policeman or detective, this might be the slot you would fit into. But you would have to be an enlisted man. Most of the officer posts are already filled.

Unless the allies are severely trounced on every front and every ocean this summer, it is difficult to foresee more than 10,000,000 in the armed forces before the end of 1943. Most men, therefore, are concerned with the possibility of their remaining a civilian. What is dependency, anyhow?

Some married men to be drawn

RULES are changing from time to time, but it is now definite that all single men from 20 to 45 will be drawn unless they have unusual dependency or are irreplaceable workers in war production industries. Married men without dependents other than a working wife or one who can work or is otherwise independent will also be taken. Local boards do not intend at this time to break up other families, but, if the British fleet should be liquidated along with one or two other calamities, younger men with families had better prepare to put their affairs in order for a long trip away from home. A law asking the Government to help take care of their dependents is being prepared. If the need presses, this country could raise an army of more than 13,000,000 without too much strain.

There are well over 20,000,000 men in the country between the ages of 18 and 45, but they can't all go to the battlefield.

The size of the army is the main factor in determining the fate of a great many men. The Selective Service Board constantly stresses that point when men ask what chance there is that they will be called. But conditions might change according to the need for specific supplies. The time may come when a 25-year-old man working on an essential job in a shipyard may be deferred and a 25-year-old man with dependents, but working in a non-essential industry, will be taken.

The big job this year is to have well over 4,000,000 men in the armed forces and 17,500,000 working on war production by January 1, 1943. Authorities believe it can be done without too much dislocation. The pinch will be felt considerably more in 1943 when the armed forces are likely to be more than doubled and war production will require 8,000,000 more according to conservative estimates. There will be a lot more talk about non-essential industries when that time comes. It is not too early to look that far ahead and make what plans you can to meet the situation.

When Dollars Loom Large

The dollars a man puts into life insurance have
greater dimension when they return to his family as claim proceeds.

Dollars look largest when needed most.



The Prudential
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RESEARCH OR ELSE

Business must build on real and constant research—or else.

Better laboratories make better research—for war or peace.

We design, build and equip them, and have done so for years.

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Co.**

ENGINEERS AND BUILDERS

CLEVELAND

NEW YORK



NO BUSINESS *Can Escape* CHANGE

Along with new weapons, business is increasingly turning out substitutes for war-time scarcities

1 • A CONVENIENT paper baler for home use is made of wood, provides for binding with cord, is easily operated, makes a compact, easily handled bundle.

2 • A MACHINE has been developed for typing on charts and drawings in sizes up to eight by 20 feet. It has readily changeable type fonts to permit the use of a variety of sizes and styles of alphabets. It has an open end type of carriage to take oversize sheets. With it most hand-lettering time can be saved.

3 • FOR BUSINESS or personal cards there is a small plastic card case which, with a tiny roller, serves one card at a time, clean and without frayed edges.

4 • A COLORED transparent finish for polished metal is being produced as a substitute for electroplating and bronze powder finishes affected by war-time restrictions. The finish consists of a concentrated enamel of the desired color added to a clear lacquer, and resembles copper, brass, bronze, color-treated aluminum, or steel. It can be sprayed or rolled on for either air drying or baking.

5 • FOR THOSE desiring fountain pen inks of distinctive color, four new shades of green, blue, brown, and purple have been brought out.

6 • A NEW PASTE to give protection against flying glass is applied with cheesecloth or similar material. The paste retains its flexibility over a wide temperature and humidity range. Used with netting it shows no great loss of light transmission. Used with a black opaque fabric it provides both shatterproofing and blacking out.

7 • A NOVEL PROCEDURE in fillet welding has been developed which saves about one-third in both electrode cost and labor time. In addition to saving time, the new technique gives better weld penetration.

8 • A NEW TYPE asphalt tile is designed to prevent accumulation of static electricity. No open flames are required during installation or repair. It is resilient, has a tough fiber reinforcement, and a matte finish to prevent glare.

9 • A NEW BUILDING material for wall construction has a weather-sealed mineral granule surface on a cane fiber insulating board core. The core is treated for protection against termites and dry rot and is coated on all sides with an asphalt compound. It has high insulating value and allows quick, easy erection.

10 • A CORRUGATED fastener with tack points for repairing furniture, screens, other wood articles is now packaged in a small box for home use.

11 • A NEW OVERHEAD fixture for fluorescent lighting has eggcrate type louvers and a curved diffusing prisms glass bottom. It permits strong downlight with comfortable

shielding at normal angles of vision and has a low surface brightness. Both the glass and louvers have a convenient hinge for changing lamps or cleaning, or both units can be released entirely. The fixture can be used as a unit or in continuous runs.

12 • A NEWLY developed jar for commercial or home canning is all glass, excepting a rubber gasket. It has a tight vacuum seal which is easily opened with a small key. The jar has a large neck, is easy to clean, can be reused with the old gasket to give a good seal. Flat base and top permit easy stacking.

13 • A NEW TYPE AXE is designed for air raid work or general utility. It has a broad, hardened head well suited for pounding and a widely chamfered cutting edge to prevent chipping as a result of foul blows. It has a one and three-quarter pound head and a sixteen inch handle and can be used as a one-hand tool.

14 • A CONTRACTION JOINT for concrete airport runways or highways obviates the use of steel. It is a mastic board made of asphalt, shaped to the same design as steel joints.

15 • POLARIZING LENSES, available some time for sun glasses to eliminate reflected glare, are now made so that they can be ground to prescription to correct defective vision at the same time.

16 • A NEW PORTABLE tripod type beaded projection screen designed for schools, training centers, and the like has an automatic clutch to permit raising and lowering to any heights and to eliminate set screws.

17 • LABELS or tags are now made with a new dry type adhesive that adheres to any smooth surface, including polished metal, glass, and plastics, with only finger pressure, is unaffected by heat, cold or humidity yet is easily peeled off without leaving a stain. They are available in assorted sizes for inspection and identification stickers.

18 • FOR HANDLING long strips of sheet metal there is a hand truck with hydraulic lift to keep the sheets at a convenient height while the operator feeds them to a press. It can be arranged for a towing hitch.

19 • A NEW adhesive for polishing wheels dries quickly, resists friction heat, and gives sharper, longer wear.

20 • AN UNUSUAL mechanical pencil has a perpetual calendar at the upper end. Easily reset from month to month, still it will not accidentally change adjustment to the wrong month.

—W. L. HAMMER



21 • A NEW coin bank is especially designed to aid in purchase of Defense Bonds. Transparent, with separate compartments for dimes and quarters, it shows the amount saved, and when filled the contents exchange exactly for a bond.

EDITOR'S NOTE—This material is gathered from the many sources to which NATION'S BUSINESS has access and from the flow of business news into our offices in Washington. Further information on any of these items can be had by writing us.

Training for Home Construction

AT LEAST 20,000,000 men will have to transfer from war production to peace-time production and distribution after the war. In some respects the peace-time readjustment will be even greater than the present unlimited war emergency.

All economists—public, private and academic—are agreed that a large part of this unemployment problem can be solved by widespread expansion of the building industry.

The economists tell us that—if we could fit into individually owned homes, with garden plots, the 15,000,000 families who do not own their own homes; if we could rehabilitate and improve the 100,000,000 existing structures of all kinds in our country; and if we could develop our farm building program to top efficiency—we could probably solve this promised post-war unemployment crisis.

On the other hand, if private enterprise cannot solve the unemployment problem without inflationary government subsidies, the bureaucrats will take over.

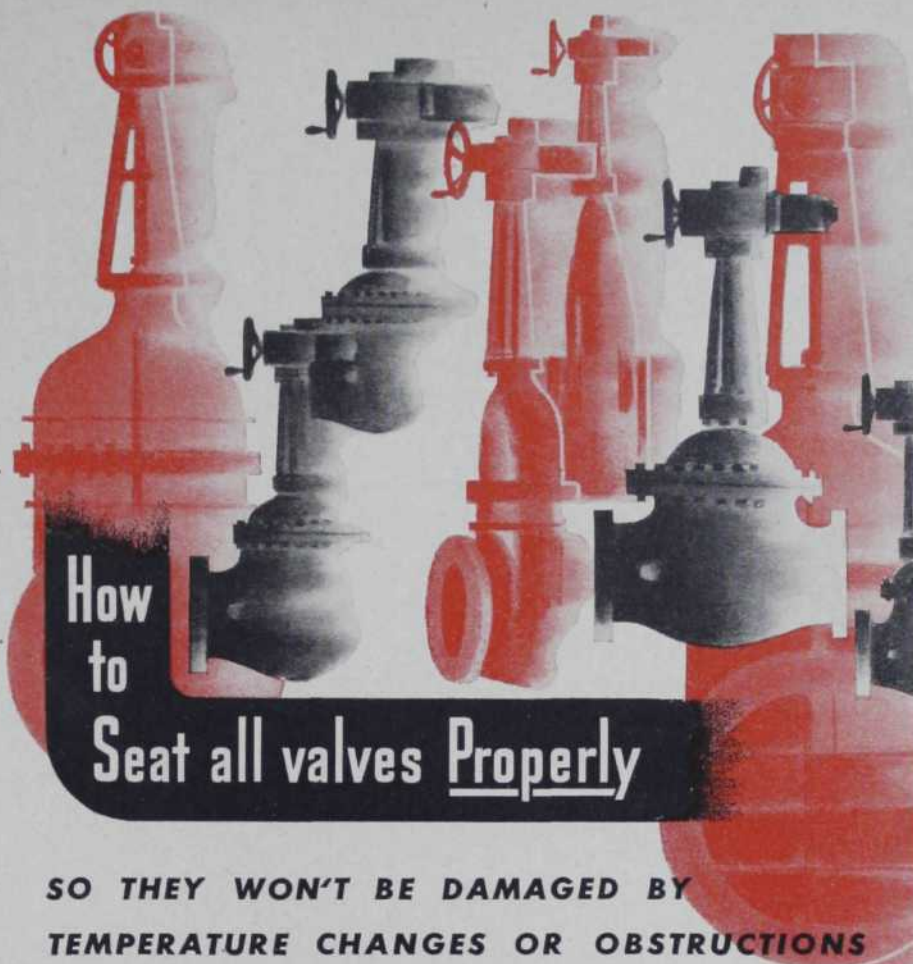
Classes are under way

SEVERAL universities have already recognized the potentialities in this vast field and have started classes to train students in all phases of the small construction industry. While the statistics available are not conclusive, it is probable that one college graduate out of every four outside of the professions will eventually earn his livelihood from some tangent of the building industry.

Universities that have announced full four-year courses up to this date are Massachusetts Institute of Technology, North Carolina State College, University of Denver and Iowa State College.

In addition to engineering, construction courses will include such subjects as: how to appraise real property; how to analyze structures for improvement possibilities; how to write specifications; how to sell on installment payments; how to supervise construction jobs; building codes; zoning city planning, and every other phase connected with the industry from financing of building to maintenance and marketing.

The first graduates from an adequate building marketing course will have no competition and those who follow will have only the competition of those trained graduates who have preceded them up the ladder.



How to Seat all valves Properly

SO THEY WON'T BE DAMAGED BY TEMPERATURE CHANGES OR OBSTRUCTIONS

To seat all valves properly so that they are tightly closed yet safe, simply insist on Cutler-Hammer Motor-Operated Thrust-Seating Valve Control. It seats valves on a proven "controlled-thrust-seating" principle. That means accurate seating under normal conditions, and safety under abnormal conditions. But most important of all, C-H Thrust-Seating Valve Operators automatically maintain the same degree of tightness as valve parts expand under high temperature and contract under

low temperature. That's why with C-H Valve Operating Units you never get jammed valves, you never have to "back-off" valves... and you won't be faced with shut-down at a time when continued, trouble-free operation is at the highest premium in history. Insist on Cutler-Hammer Valve Control. For gas, water, high and low pressure steam service—in fact for any valve where fast, reliable operation and accurate seating can save you time, trouble and expense. It offers you every feature—plus. CUTLER-HAMMER, Inc., 1251 St. Paul Ave., Milwaukee, Wis. Associate: Canadian Cutler-Hammer, Ltd., Toronto, Ontario.



1892-1942 • 50th ANNIVERSARY



How O.P.A. Spills the Sugar . . .
Dearth of Tires Hits Super Markets

Hoarding by Consumers on a considerable scale is reported from far and wide. Dollar sales have been running about 30 per cent over a year ago. Twenty per cent of this is said to be owing to higher prices, five per cent to greater consumption of the better quality foods and the other five per cent to "anticipatory accumulation" of food reserves.

Chief reason for hoarding, says the American Institute of Food Distribution, is the fanfare of announcements from Washington threatening price ceilings on foods. "A constructive solution," the Institute declares, "might be for the federal Government to put its publicity men in a concentration camp."

★ ★ Adjusting Business to War and Peace ★ ★

In the course of nation-wide research and analysis for one of our client companies, we so far have found (1) **a suitable new product (secured on a license basis)**, and (2) **a substantial going business which we have purchased outright**—both fitting into a definite development program for war and peace times. Now we are looking for more products and businesses which will help further to expand and diversify this client's activities so that when peace comes facilities now devoted to defense production may be occupied fully.

The type and kind of business or product which we now are prepared to buy for this particular client, without any cost, fee or commission for the seller to pay (in accordance with our regular practice) has been carefully planned and authorized by the Directors of this client—also in accordance with our usual procedure. It should be a product or business of a mechanical nature, size unimportant, a self-contained unit employing distinctive patented or patentable features.

For other clients, in non-conflicting fields, we are interested in investigating and acquiring a wide variety of suitable products and businesses—latest “Want List” on request. Inquiries from manufacturers as to Demarest Service will be treated confidentially and without obligation.

L. M. DEMAREST and ASSOCIATES
230 Park Avenue, New York City
Industrial Consultants
Founded 1930

As so often happens under similar circumstances, those who sit at the control throttles fail to appreciate the extent and manner in which consumers anticipate the effect of these controls. When the O.P.A. issues a release warning that a price ceiling may be applied to sugar, for instance, the object is to keep the price level from rising. But the actual effect is very different. Retailers read the warning and buy heavily in sugar. They tip off some of their customers that this publicity means there is a sugar shortage. Rumors start on their way and a consumer run on sugar follows. The O.P.A. has spilled the sugar. Nothing remains but to ration it.

Sugar rationing is proving such a terrific job that the Administration hopes to avoid going through the same painful process with other foods. General rationing would soon make it necessary, as in Great Britain, that each consumer be registered by a particular store, for each rationed item, and that she then confine her buying of it to that establishment.

On the other side of the price fence, watching Mr. Henderson and Mr. Wickard trying to balance prices at parity, is the farmer. For years he has seen the Government straining vainly to build up farm prices to parity; now he wonders if it will be any more successful in holding them down to parity.

On two products, tomatoes and peas, the O.P.A. has made an exception and not only applied no price ceiling but has established premium prices designed to obtain high production to meet an anticipated serious shortage. Growers will get \$6 a ton more for their tomatoes this season, making the price \$17.50 in most producing areas. The increase on peas is \$17.50 a ton. In Michigan, for example, pea growers will receive a state average of \$59.80, compared with \$42.30 last year.

Farmers point out that this is not the break for them that it appears to be, since these two crops require an unusual amount of labor in growing and marketing. With farm labor as scarce as Scotchmen in Washington, they can plant additional acreage in tomatoes and peas only by reducing other crops in greater proportion.

Drastic Limitations on deliveries are recommended by the National Association of Retail Grocers. Save tires, the

association asks, by imposing once-a-day limits on deliveries to each district, by making fewer or no C.O.D. deliveries, and by cooperative pooling of delivery facilities.

Many stores are declining to deliver anything less than minimum orders of \$2 or so, with a service charge for exceptions or "specials," either as to amount of order or irregular time of delivery.

Conflicting with this trend is the fact that fewer customers are driving their private cars to the food stores. Predictions are made that by summer there will be 25 per cent fewer automobiles on the streets and roads. The big super markets, whose business comes almost entirely from the auto cash-and-carry trade, are worried. The neighborhood grocer stands now to gain several laps in his race with the super market.

"Surplus Commodity" Buying by the Government continues coincident with pleas by the Secretary of Agriculture for greater production by farmers. The Federal Surplus Commodity Corporation, organized primarily to boost prices of "depressed" farm products, has been doing some spirited buying of canned pork, grapefruit and dried beans. The F.S.C.C. is reported also to be holding large stock piles of canned tomatoes, peas, grapefruit juice, apples, pears, prunes and peaches.

—FRED DEARMOND

LOGISTICS

Strategy is the planning of warfare.

Tactics is the execution of those plans.

Logistics, the third branch of military science, is the supplying of everything necessary to strategy and tactics—in the right amount, at the right place, at the right time.

Now, in *total* war, we must apply the science of Logistics to all of our activities as a nation—civilian as well as military. WE-ALL are part of the Victory Program.

Our supply lines are literally life lines of the United Nations. Man-power *and* munition-power are the controlling factors.

Today, Logistics dictates strategy—determines tactics.

Congress has appropriated billions of dollars *but it cannot appropriate one single second of time.*

Time favors those who appreciate it as the priceless commodity it now is.

In war, when we save time we save lives—and we make our individual contribution to Victory.

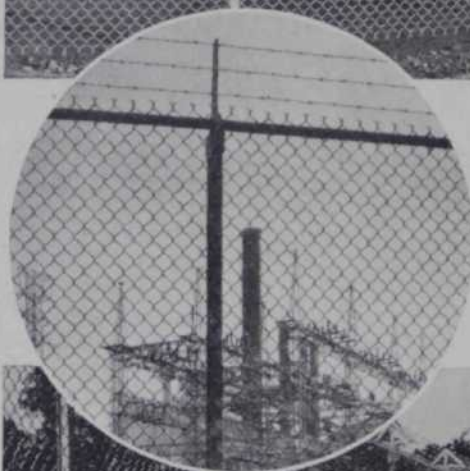
DEPARTMENT OF LOGISTICS

INTERNATIONAL BUSINESS MACHINES CORPORATION

This message appeared in every daily newspaper, both English and foreign language, in the United States and Canada, on March 30, 1942

BAD NEWS FOR SNOOPERS!

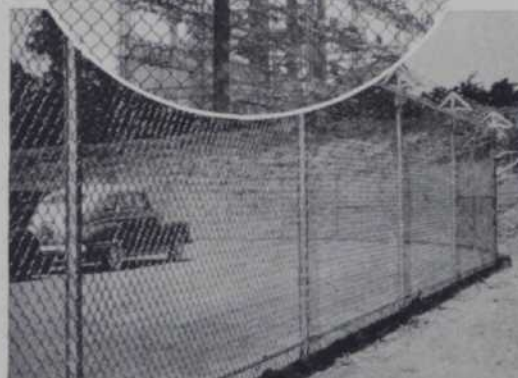
*All over the country
Cyclone Fence is guarding
plants that make vital
war supplies*



What greater discouragement could saboteurs and thieves find than this sturdy enclosure of Cyclone Fence? It is one sure way to prevent trouble before it begins.

The barbed wires on top of Cyclone Fence certainly make it tough to get in—and they are sure to spoil the getaway. Barbed wire extension arms are available in several types.

Day and night, Cyclone Fence is on the job—guarding the entire plant, yard inventories, railroad sidings and other important places around the plant.



SPIES and trouble-makers do not like Cyclone Fence. But safety directors, presidents and other industrial executives certainly do. For they know that this sturdy barrier of steel has helped them keep snoopers, saboteurs and thieves out of their plants.

U-S-S Cyclone Fence is made with ruggedness that means long service and low maintenance. It is constructed on sturdy steel posts, set in concrete bases frost won't budge. Gates swing freely—for the weight of the gate is supported on a special ball-and-socket hinge set in concrete.

Does your plant have this important protection? Is every foot of property line guarded against intruders? If not, let us help you work out a complete plan. We will help you choose the right type of fence and gates—and submit estimates.

CYCLONE FENCE DIVISION
(AMERICAN STEEL & WIRE COMPANY)

Waukegan, Ill. • Branches in Principal Cities
United States Steel Export Company, New York



**CYCLONE
FENCE**

UNITED STATES STEEL

32-Page Book on Fence



Send for our free book on fence. Cramped full of facts, specifications and illustrations. Shows 14 types—for home, school, playground and business. Buy no fence until you see what Cyclone has to offer.

CYCLONE FENCE
Waukegan, Ill., DEPT. 552

Please mail me, without obligation, a copy of "Your Fence—How to Choose It—How to Use It." I am interested in fencing: ☐ Industrial; ☐ Estate; ☐ Playground; ☐ Residence; ☐ School. Approximately _____ feet.

Name _____

Address _____

City _____ State _____

Summer Strategy on Three Fronts

(Continued from page 31)

will seek to annihilate Russia's forces.

It is fortunate for us that the Axis has other plans this year. India and Australia are scarcely strong enough at this time to ward off a full out Japanese blow. Our troops and material are being rushed there. The armies of MacArthur and Wavell must be steadily increased until they suffice, not only for the defensive requirements of Australia and India, but also to take the offensive against Japan.

Relief for Russia

IT IS not sufficient, however, merely to send troops and material to the Asiatic theater of war. Even if we sent 1,000,000 men to Australia and India, we still should be on the red side of the balance sheet were the Russian Army destroyed this summer. This must be prevented at all costs.

That is but one part of our task, and it is a great task. We have been launching one ship a day. Soon we will be launching two ships, and some months hence three ships a day. That number will not be enough; we must have more to offset sinkings and to enable our maximum effort. Our factories are turning out planes and tanks in increasing volume, and are approaching the huge quota President Roosevelt recently laid down.

This, it may be said, constitutes an offensive, as important as the passage of our fleet across the Pacific to engage the Japanese fleet. Our enemies recognize it as such. Therefore, it is their aim to defeat Russia this summer, and thus cut short our time for developing man power and material. How great is the job we face in Europe will be realized when I state that a large number of Anglo-American divisions will be required to establish the second front, and thus relieve Russia by forcing the withdrawal of German reserves from the steppes. Perhaps, in the light of Stalin's dire need, we may attempt something of the kind before the summer ends.

Just where we will land is a military secret. It may be in Italy, the French Coast, Norway—certainly not in North Africa, which is an outpost of Europe. As to Japan, we shall be building stepping stones for our fleet across the Pacific by recapturing Wake Island, by seizing her mandated islands, and by the reoccupation of the islands north of Australia. We should be in a position to select one of several routes to reach the main enemy fleet, which is stationed at a central position a short distance westward of Guam.

Superior as we will be when the time arrives for our military offensive, there will be no question of our victory. But to assure it, every American, whether of management or labor, is in duty bound to make an all-out individual effort to provide our ships and troops with the implements they must have when the day of battle opens.

N.Y.A. Meets The Press

(Continued from page 32)

stacles it meets in doing it, the N.Y.A. tool adventure offers an interesting and timely example.

The N.Y.A. activities had been brought into the news picture in Maryland early in the year by a statement of the Maryland administrator, Glen S. Brown, that "there is nothing that the N.Y.A. is doing or can do that public schools cannot do, with the aid of the employment service, in placement in employment."

This was followed, a few weeks later, by the discovery that N.Y.A. had thrust upon the little mountain town of Lonaconing—population 2,600—a \$60,000 "community center."

Machinery in packing crates

NATURALLY, what was going on at the other major N.Y.A. projects was news, particularly the progress on the two N.Y.A. super-shops in Maryland—one at the great Government Experimental Station at Beltsville and the other on the University of Maryland campus at College Park.

Baltimore *Sun* reporters who visited these shop sites returned with the information that progress was slow. Machinery that had been in packing crates for months at Beltsville was just being uncrated in the middle of March.

Complimented on the appearance of the bright, gleaming new machinery fresh from the shipping crates, the N.Y.A. functionaries at Beltsville proudly boasted that it was only a drop in the bucket. Beltsville, they pointed out, was only one of the "master shops" in the fast-expanding N.Y.A. layout.

And, they insisted, this was the real stuff, not outmoded or obsolete junk, but real production equipment, "just like they have in industry."

That, the editors of *The Sun* decided, was news. If these were production tools and N.Y.A. had them scattered all over the country while the W.P.B. was doling out priorities to war industries, and war industries were counting themselves lucky to get six-month delivery on machine tools, it was news, indeed!

Just to make sure, a production engineer from one of the war plants in Baltimore was invited to accompany *Sun* representatives to Beltsville to have a look at the machines.

"Standard equipment," he said. Back in his plant he showed the reporters similar machines turning out parts for anti-aircraft gun carriages.

This is what reporters catalogued among the Beltsville Equipment:

Thirteen engine lathes of standard makes, up to 17-inch, all fitted with individual electric motors, quick-change gears, automatic feed and push-button controls.

Twelve standard-make motor-generator arc-welder units, the product of four manufacturers, with rated capacities up to 260 amperes.

Seven of the latest-type grinding ma-

GOOD BUSINESS NEWS



MODERN FINANCING FOILS A BLITZ!

Money troubles began to plague the Zee Company* in 1939. Despite normal sales of \$1,966,767 there was a net loss of \$29,111.

This was a setback—but not a fatal one. However, when the \$200,000 credit line, which this company had enjoyed for years was suddenly withdrawn, the temporary embarrassment became a critical situation.

The first quarter of 1940 was desperate. News of the financial situation must have been grapevined around. Soon the creditors were pressing hard. The Company was on the hunt for more adequate financing.

By April, when they contracted for our service, it was acknowledged that without it they would have had to resort to reorganization financing. We immediately made substantial advances against their receivables and the crisis was past.

That year, with about the same volume as in 1939, they showed a small profit. Their working capital was increased from \$183,882 to \$212,971.

In 1941, they really reaped the advantages of the new flexible financing. Year end figures showed:

SALES	NET PROFIT	WORKING CAPITAL
\$2,612,328	\$90,032	\$305,413

On the basis of their current position, doubtless their former financing connections would be glad to make an "about face" and revive the original credit line. The Zee Company, however, prefer the arrangements they now have with Commercial Credit Company.

* * * * *

Though this case demonstrates the value of our service in an emergency, with our OPEN ACCOUNT financing service your receivables and your inventories provide ample cash as you need it, eliminate the uncertainty of sudden changes in your working capital requirements and permit you to operate at capacity. Why not look into this? For complete information write for booklet "ANCHOR TO WINDWARD." Address Dept. 1404

*A fictitious name, but the facts and figures, taken from our files, can be verified.

Commercial Credit Company

"NON-NOTIFICATION" OPEN ACCOUNT FINANCING

Baltimore

Boston New York Chicago San Francisco Los Angeles Portland, Ore.

CAPITAL AND SURPLUS MORE THAN \$65,000,000

chines, all fitted with the newest operating developments.

Two medium to heavy-duty shaping tools.

Two vertical milling machines.

An assortment of drill presses, power saws, punch presses and utility tools.

To be doubly sure that the gleaming new equipment at Beltsville, and that in the crates at College Park, was not unusual, *The Sun* decided to survey the field in neighboring states.

This survey disclosed that new machinery for some of them had not yet left the factory. In some, as at College Park, new machinery of various types was still resting in original delivery crates. Other units, although uncrated, had not been set up for operation, nor connected to power lines.

In the N.Y.A. machine-shop at Manassas, for example, while production in shipyards lagged for lack of welding equipment, a reporter found 28 heavy-duty and six medium-duty welding units in an unfinished building.

On the same project, the machine-tool layout was being completely revamped to provide for the installation of new tools. Thirteen lathes were being set up and the project manager said he was awaiting delivery on eight new ones.

An entire center at Lancaster, Pa., had to be abandoned after machinery had been installed because of the failure of water and sewage facilities.

But, in all cases, the tools were there; and, in few cases, were being used.

At the most, under the N.Y.A. system

of giving prospective defense workers a three-month "work experience" course, while paying them \$30 a month, the N.Y.A. tools on a three-shift basis would be used only 60 hours a week. In no case in the four-state survey, did *The Sun's* representatives find any shops actually on a three-shift basis.

Machines have short hours

ACTUALLY, certain of the N.Y.A. top officials admitted, the organization as a whole was averaging nationally only two shifts. That means that N.Y.A.'s thousands of pieces of production equipment are turning over not more than 40 hours a week.

The trainees actually are permitted to handle the machines only four hours in each of the so-called shifts of eight hours. The other four hours are spent in related training—instruction in a wide range of subjects from "shop practice" to citizenship.

Some idea of the "production" emanating from N.Y.A. shops can be gathered from an instance in one of the Virginia shops. A youth of about 18 was standing at a slowly turning lathe intent on shaping a ball-peen hammer head.

"Are you making that from a blueprint?" he was asked.

"Naw, just out of my head," he replied.

Armed with the information they had gathered at the various shops in Maryland, Pennsylvania, Virginia and West Virginia, *The Sun's* representatives called on Mr. Williams before publish-

ing their story. Mr. Williams declined their request for an inventory of the equipment held by the N.Y.A. He declared that such an inventory would be "misunderstood" and insisted that "on the whole we took them from backyard junk piles."

Reminded that N.Y.A. literature describing various projects referred to the equipment of these projects as "the finest shop equipment obtainable," and "the finest machinery available" and "industrial machine shop, sheet metal, welding and forge equipment of the latest production type," Mr. Williams amended his statement.

He then conceded that 70 N.Y.A. shops—he described them as "master shops"—had been outfitted with new equipment. Later it developed, on the authority of N.Y.A. officials to whom Mr. Williams referred the question, that 125—not 70—shops were equipped with new machinery.

On hand how long?

HOWEVER, Mr. Williams insisted that the new equipment was "surplus" at the time N.Y.A. acquired it.

At that interview, Mr. Williams said he proposed to check on the information that some of the equipment had not yet been removed from delivery crates.

A few days later, a photographer sent to College Park took a picture of convicts from the Maryland House of Correction moving uncrated equipment from a university building basement into the still unfinished N.Y.A. shop.

The day *The Sun* published the fact that the 10,000 new tools were among the still more thousands that N.Y.A. held while war industry marked time for lack of the same machines, Mr. Williams in another interview declared:

1. The equipment will be made available to industry at any time upon request of the War Production Board.

2. Most of the equipment is of a light, training type unfitted for the heavy day-to-day demands of actual production.

3. At any rate, the machinery is serving a better purpose in the hands of N.Y.A. by affording training to youthful workers who then "graduate" into the shipyards, aircraft plants, and munitions factories.

That, said Mr. Williams, constituted his full answer to the charge that the N.Y.A. was hampering production by clinging to tools which industry needed.

He admitted, however, that the figures on the numbers of machine tools which *The Sun* representatives found at N.Y.A. centers were correct, but he questioned the validity of listing nearly half of them—4,600—as being among the type classified by the W.P.B. as "critical" and, in some cases "very critical."

A few days later, before the Senate Committee on Education and Labor, which has pending a bill by Senator McKellar (Dem. Tenn.) to abolish the N.Y.A., Mr. Williams entered a categorical denial that any N.Y.A. tools were lying around uncrated.

The Sun's stories were made a part of that committee's record and Mr. Williams at this writing has not yet responded to the committee's request for a detailed explanation of the charges.

PERHAPS YOU'RE MISSING SOMETHING



Is your present Compensation Insurance serviced by a trained, full-time representative . . . Are you getting personal Engineering Service to help reduce losses . . . Are claims handled promptly and efficiently . . . Did you receive a dividend of 20% last year? Hardware Mutual policyholders received all that, and more. They had the satisfaction of being insured by a Company of outstanding financial strength with 28 years experience in handling Compensation problems. Write for information . . . No obligation, of course.

Hardware  Mutuals

FEDERATED HARDWARE MUTUALS

Hardware Dealers Mutual Fire Insurance Company, Home Office, Stevens Point, Wisconsin
Minnesota Implement Mutual Fire Insurance Company, Home Office, Owatonna, Minnesota

HARDWARE MUTUAL CASUALTY COMPANY

Home Office, Stevens Point, Wisconsin

OFFICES COAST TO COAST . . . EACH COMPANY LICENSED IN EVERY STATE

ONE OF THE LARGEST GENERAL WRITING FIRE
AND CASUALTY INSURANCE GROUPS IN AMERICA

Kimpak

REG. U.S. PAT. OFF. & FOREIGN COUNTRIES

... one of the busiest materials in America
makes "worn out" oil
better than new

ONE OF THE THOUSAND-
AND-ONE USES FOR
AMAZING KIMPAK*

★ KIMPAK*, an amazingly adaptable material, is now busy helping to conserve lubricating oil for America. Used in the Briggs Clarifier Company's patented filtering equipment, a special type of KIMPAK removes grit, carbon, and other contaminants from service-worn motor oil . . . makes it better than new. KIMPAK for this purpose is porous, highly absorbent, and has a low flow resistance; it's a type that's useful for filtering many other kinds of liquids, as well as gases and air.

Yes, KIMPAK is a material of a "thousand-and-one uses." For example, there are special types of KIMPAK that provide highly effective thermal and acoustical insulation for products ranging from railway refrigerator cars to airplanes! Here's insulation that's flexible, easy to install . . . insulation that even severe vibration won't harm.

Still other specifications of KIMPAK give resilient bulk, are used for special padding purposes in the manufacture of upholstered furniture, leather goods, boxes for candy and cosmetics, portfolios, desk blotters, and many other products.

KIMPAK comes thick or thin, and in any dimensions you require. Specially treated, KIMPAK resists moisture, abrasion — even fire! And most important today, KIMPAK is *immediately available*.

It might pay *you* to look into KIMPAK. Facts you should have are contained in new book "KIMPAK—AND ITS THOUSAND-AND-ONE USES IN INDUSTRY." Send for FREE copy now!

*KIMPAK (trade-mark) means Kimberly-Clark Wadding.

KIMBERLY-CLARK CORPORATION
(Established 1872) Neenah, Wisconsin
Send FREE copy of story of KIMPAK to

NB-642

Company.....
Address.....
Attention of



"Plans" May Deny Us Food

(Continued from page 26)

advancing prices for beef, veal, and wool led to a widespread abandonment of beet acreage in favor of the more profitable non-ceilinged crops. Here, then, is a picture of government management actually reducing available supplies in two different directions at once. This situation fairly illustrates a fundamental difficulty in Washington today. Many things are worked out on paper. They add up nicely. In the official conference room, the solution is perfect—or would be if the sugar were actually at hand, instead of in Cuba, Hawaii, the Philippines, Puerto Rico, Martinique, and Santo Domingo.

Two: Industries are urged to pool their resources, eliminate costly competitive practices, cooperate on urgent production assignments; yet, for four months after Pearl Harbor, every week brought a new crackdown by the Antitrust Division of the Department of Justice or the Federal Trade Commission, including proceedings against meat packers, canners, bakers, dairy processors and wrapper manufacturers. This ever-present threat became so ominous at length that government officials sometimes found it impossible to get two or more leaders in certain industries together in the same room, lest an anti-trust indictment fall upon them. W.P.B.

Director Nelson at length carried the case to the White House. The Department of Justice indicated a relaxation in its antitrust policy touching essential war activities. But the reprieve was late. Months had been lost. A new food season was well advanced.

Three: The price mechanism is the great governor of food supply. Piece-by-piece price fixing over a period of one year has frozen several stages of food costs, while leaving other segments wholly unanchored. Wheat is not under a ceiling, but jute for flour bags is—and new supplies are not available from the Orient. Substitute cotton bags? But cotton is not under a ceiling. Try paper bags? Perhaps, but paper is under both a ceiling and priorities. Large tin cans are available on certificate for lend-lease flour only. Should the flour miller try glass bottles for the domestic trade?

Four: Tin is denied canners for beans. So we have a news dispatch from Lansing:

Michigan agricultural authorities are seeking means to prevent spoilage of more than 1,000,000 bags of beans glutting storage bins because of the war ban on tin for canning them... most beans now stored contain 20 per cent moisture, suitable only for canning... warm weather within five or six weeks will cause the beans to germinate... Michigan lacks

drying facilities to handle the crop within that time.

Five: Under the government wheat loan, millions of bushels are stored in hastily improvised bins on the farms. F.C.A. pays the farmer seven cents a bushel for such storage. Summer temperatures in the open-field bins rise to 160 degrees or more. Last year more than 150,000,000 bushels were pronounced unfit for human consumption. Under loan at about \$1 a bushel, it was sold for feed at about 75 cents. This summer there will be about 600,000,000 bushels of old-crop wheat on hand, plus a new harvest of about 900,000,000 bushels. But the 1941 penalty of 49 cents a bushel on over quota wheat has been held invalid and is now before the Supreme Court. Who, then, can estimate the price of wheat? How long can such basic industries as milling and baking operate under hour-to-hour price policies—guessing on the weather, storage capacity, F.C.A. rules, 110 per cent of parity, and the Supreme Court?

Six: The Food and Drug Administration is authorized to fix "standards of identity" for canned and packaged items, approving labels describing contents. On February 26, F.S.A. Administrator McNutt proclaimed standards for apricots, cherries, peaches, and pears. These standards forbade the use of "medium syrups." Canners accordingly ordered millions of new labels. Then W.P.B. discovered that the "heavy and extra heavy syrups" ordered by McNutt would require hundreds of tons more sugar than "medium syrups." But W.P.B. could not change McNutt's order. It could only limit sugar to 80 per cent of last year's consumption. Where does all that leave the fruit canners and their millions of new labels?

Seven: Last year, lend-lease assigned 1,873,000 tons of foodstuffs abroad in nine months. This represented government purchases exceeding \$500,000,000. During the same months, the Department of Agriculture bought another \$100,000,000 of foods for the blue-stamp distribution plan, and the Army and Navy bought \$100,000,000 worth for camps and sea stores. Lesser food purchases were made by government for Indians, prisons, and N.Y.A. school lunches. Nowhere is all this vast buying centralized and coordinated. One type of government food buying is for the avowed purpose of supporting the markets—so the other government procurement agencies come in at a higher price, and then raise it again with almost limitless demands for lend-lease.

In sugar, for example, lend-lease in one year bought 75,738,874 pounds, plus 10,000,000 pounds of corn sugar (which the Food and Drug Administration forbids us call "sugar" at home), plus 576,000 pounds of cane syrup and 120,000 pounds of fountain syrup. Can prices be held under Mr. Henderson's ceilings with such demand factors running amuck in the open markets? All food purchases for government account obviously should be centralized, and or-



Be fair to yourself and Uncle Sam. Victory demands conservation of energy. For your off hours the famed hospitality of the Sherry Netherland provides:

A QUIET LOCATION... across from the Park yet convenient to everything.

A "PRIVATE" LOBBY... not swarming with people.

INTIMATE RESTAURANT and BAR... splendid cuisine; room service, of course.

METICULOUS SERVICE... relieves all worry, surrounding you with every comfort.

TRANSIENT RATES: from \$7.00 single, \$9.00 double, \$15.00 suites. 25% discounts on rooms, for all members of the U.S. armed forces

The SHERRY
NETHERLAND

"Where the Park Begins"

Fifth Ave. at 59th St., New York, N. Y. Eugene Voit, Mgr.

FOR VICTORY: BUY WAR BONDS

\$ AND SENSE

Company Treasurers Take Notice: Ask for details of the Sherry Netherland "Company Plan" if your executives frequently visit New York. Suites on short-term lease basis are most reasonable. Write for folder CP-1.

How to keep a good car good

EVERY car in use today must, as a matter of national need, now last the longest possible time. That calls not only for use carefully considered to avoid waste of the country's supply of rubber, gasoline and oil, but even more importantly for *care* designed to conserve your car to the utmost. • If you can set a spark plug and have it right, adjust a carburetor for most efficient use of available fuel, align a wheel or adjust brakes to give longest tire mileage—fine. • If those things are beyond your mechanical bent, remember that your General Motors dealer is expert at maintaining cars

as well as repairing them.

- Right now, all of his interest and attention is centered on *keeping good cars good*, because he knows that for the present, war production comes ahead of providing replacements.
- Meanwhile—he furnishes quality parts. He maintains an expert servicing staff. His shop equipment is modern and complete.
- He is the man in your community best qualified to work with you to keep your car fit and efficient, to the end that the country's existing supply of automobile transportation will be sufficient to see us through to the day of final victory.

The Automobile User's Guide answers your questions about taking care of your car in wartime. For a free copy see any General Motors dealer today or write Customer Research Staff, General Motors Building, Detroit.



GENERAL MOTORS

NOW AT WORK ON: Aircraft Engines • Airplane Parts • Bomber Sub-Assemblies • Military Trucks • Armored Cars • Rapid-Fire Cannon • Machine Guns • Diesel Engines • Shells • Tanks and Tank Parts • Propellers • Cartridge Cases • Gun Mounts • Fire Control Devices • Electrical Equipment • And Many Other Wartime Essentials.

CHEVROLET • PONTIAC • OLDSMOBILE • BUICK • CADILLAC

HEAT-FAG and ACCIDENTS Ride Together



BEWARE of Heat-Fag . . . that dangerous, insidious force that saps the vitality of workers — brings on fatigue — and in many cases is the direct cause of accidents. Man-hour protection must precede production. When men sweat, they lose body salt. As the natural salt balance in the system is disturbed, there is a definite lowering of efficiency. The worker tires — becomes inalert — careless. A slight mistake and — another costly accident is chalked up. Heat-Fag again takes its toll.



QUICK DISSOLVING (less than 30 seconds)

This is how a Morton Salt Tablet looks when magnified. Examine one—see how soft and porous it is inside. When swallowed whole — with a drink of water, they dissolve in less than 30 seconds.

**AVOID HEAT-FAG—USE
MORTON'S
SALT TABLETS**

Wherever workers sweat, Salt Tablets are needed, for they represent the simple, easy way to replace salt that's lost through sweating and hot work.

Case of 9000 10-grain salt tablets, **\$2.60**

Salt-Dextrose Tablets, case of 9000 **\$3.15**

Order from your distributor—or directly from this advertisement.



Place MORTON'S DISPENSERS at all Drinking Fountains

They deliver salt tablets, one at a time, quickly, cleanly — without waste. Sanitary, easily filled, durable, 500-tablet size, **\$3.25**. 1000-tablet size **\$4.00**

MORTON SALT CO., (Salt Tablet Div.) Chicago, Ill.

**Your Own Personal Supply
of Salt Dextrose Tablets**

SEND TODAY — for this unbreakable, screw-cap container holding 100 salt-dextrose tablets. Moisture-proof, handy, convenient. Ideal for home, car, golf bag — or for carrying in your pocket. Only 25c postpaid.

100 TABLETS — 25¢

**EVERYONE WHO SWEATS
NEEDS SALT!**



ders placed with some regard for the supply picture in various items.

Eight: O.P.A. has its several food sections, some for price control, others for rationing. But W.P.B. also has its food sections, with ten industrial advisory committees for different branches of the industry. The Board of Economic Warfare controls in large measure all imports of coffee, tea, cocoa, spices, essential oils and other imported foods. It cannot tell the industries what may be available until it gets ship allocations from the War Shipping Administration.

Nine: Secretary Wickard has objected to the suggestion that all peace-time crop-control activities of the Department of Agriculture be abandoned temporarily and every appropriation available be devoted to increased production and low-cost distribution of foods. Pointing out that the wheat supply for the new crop year would be 1,500,000,000 bushels—"enough to meet all our requirements for about two years"—Wickard said the soil conservation benefit payments nevertheless must be continued.

"That is more wheat than we know what to do with. When the new crop comes in, there will be tremendous problems of how to haul it and where to put it."

Managed-economy in agriculture thus has come around to twice as much wheat as we need, contemporaneously with about half our requirements in sugar, and some distressing shortages in certain meats and fats—literally millions of bales of surplus cotton, and not enough wool for pants cuffs!

Today the people of many lands, their own fields made idle by war, are looking to America for the "food that will win the war and write the peace." While they look, inexperienced fingers are tinkering with the delicate machinery on which their hope depends. Theorists and high-placed experimental collectivists are trying to rebuild the machine as they think it ought to be.

Great as the demands of the hour actually are, the energy and resourcefulness of our agriculture and food industries are equal to them, if the burdens of official interference are removed.

Logically, that is the thing to do.

But it is undoubtedly too much to ask. Since the founding of the Government, no bureau once established, has ever given up a power it was authorized to use. It is unlikely that 23 of them will do that now.

The next best step, then, is the appointment of a competent and experienced Food Administrator to cut through existing administrative tangles, and to coordinate production, distribution, procurement and price policies into a workable American pattern, unencumbered by alien collectivist objectives and super-distilled social theories.

We have had a hard lesson. The months since Pearl Harbor have demonstrated to every home that a bureaucratic sugar quota doesn't mean a thing until the sugar is behind it. No one can eat a quota, an allocation or a priority.

EVERY 1% INCREASE IN FREIGHT CAR UTILIZATION...



...GAINS 19,552 CARS for WAR TRANSPORTATION

There were 1,955,266 freight cars on the railways' lines on January 1, 1942. This means that for every 1% we increase the productivity of those cars, we add the equivalent of 19,552 extra freight cars to war transportation!

You who use railway freight may well be proud of your contribution to war transportation. Last year with your help, AMERICA'S railways increased the productivity of their existing freight cars by 23.7% over 1940 — equivalent to providing the staggering total of 451,512 extra cars for war time needs. This was the result of cooperation and increased efficiency on the part of railroads, shippers and receivers of freight.

This war is a fight to a finish. Adequate rail freight transportation is vital to victory. In 1941 you helped the railroads handle the greatest load in their history. Your continued and increased cooperation is essential in meeting the ever greater load and responsibility to come.

Any Santa Fe representative will be glad to help you with practical suggestions on expediting the handling of your freight. Feel free to call him at any time.

YOU CAN HELP INCREASE CAR UTILIZATION BY:

- Making every car you use carry a maximum load.
- Saving every day, hour and minute you possibly can in loading and unloading cars. One minute saved nationally, in car utilization, represents 904,000 ton-miles. . . . And here is another specific

means of increasing transportation effectiveness: Order freight cars only to your actual current requirements. You'll add *days* of car utilization to war transportation by so doing. And you'll enable other shippers to do likewise.



J. J. GROGAN
General Freight Traffic Manager
Railway Exchange, Chicago, Ill.



Legal Lesson by a Pastry Cook

(Continued from page 28)

most important of these developments.

Pioneering lawyers report that some 80 per cent of the people who come had never before consulted an attorney, and that about 50 per cent of the problems can be cleared up by preventive law—without recourse to litigation.

New York City, San Francisco, Cleveland, Cincinnati, and Detroit are contemplating panels and neighborhood offices. Such plans slowly wean wage earners and small business owners from their deep distrust of bench and bar.

But, as Robert H. Jackson, justice of the U. S. Supreme Court, says, "The problem of bringing low cost legal service to those who are willing and able to pay something, and the lawyer's prejudice against effective means to that end are, strangely enough, greater than the difficulties of rendering free legal aid to those who cannot pay at all."

This is partly the fault of the public and partly the fault of attorneys. People generally do not know when they need legal counsel. Even if they are aware of their need they frequently play os-

trich. Some think they cannot afford legal services and others don't know which attorney to go to. Some average taxpayers shudder at the possibility of having to appear in court. Others really cannot pay the usual scale of fees, while some, having been burnt by shyster lawyers, prefer to lose their rights rather than be involved again. All these persons need to be educated to the feeling of security and peace of mind that legal counsel can usually give.

On the other hand, many legal practitioners fear group legal service as "cut rate" and "five and dime" law.

Progress is further hampered by this queer situation: the bar knows that the public needs to learn how and where and when to use an attorney but the attorney may not reach the public with needed explanations. An age-old ethic of the profession prohibits advertising.

More public information

MANY a major city bar association has long had an information bureau ready to direct people to lawyers glad to serve for small fees but nobody knows about it. However, of late a few venture-some bar associations have gone into a huddle and come out with the conclusion that, although the code keeps an individual member of the bar from advertising, it does not prohibit an association of lawyers from advertising.

So the near future will probably find more and more announcements of already existing services, educational material in newspaper columns and over the radio and attorney speeches telling people how to safeguard their rights and how to respect the rights of others.

But today progressive measures reach relatively few persons and it is still true that the concept of equal protection under the law irrespective of means or station in life is, for many millions, purely theoretical. No one knows or can estimate how much avoidable anguish and actual loss people suffer because they do not know their rights. But the total must be overwhelming. Yet the justification of government to its constituents since time immemorial has been, "Defense without and justice under the law within."

Nevertheless, for large numbers of the population there is really no justice within, especially at a time when people are expected to participate in a defensive effort. This is a problem which no democracy may safely ignore.

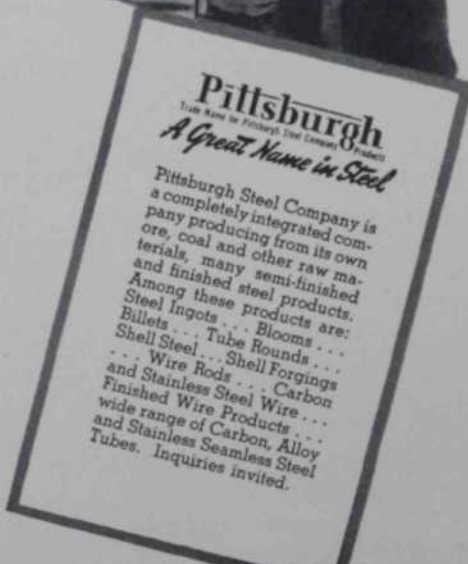
While many law leaders believe that this neglected segment of society will ultimately be cared for through well organized legal clinics something like medical clinics (which by and large serve the same persons), officials of both the Hotel New Yorker and the Waldorf-Astoria suggest that, until society jockeys itself into providing justice for all, it is good business and good democracy for employers to set up group legal advisory services.

They agree with a prominent attorney who once said that you may feed a man today and tonight he may return and burn your house, but give a man justice and you have gone a long way toward making him a useful citizen.



As well as any fence on the market can, Pittsburgh Chain Link Fence provides the maximum of protection against sabotage from without! Every detail of Pittsburgh design answers "yes" to the question "is it as man-proof as this type of fence can be?" Protective barb wire arms, for example, are adjustable to any of three prowler-repellent positions. Fastener nuts are inside the fence, defying predatory fingers. Barbed-top fabric selvage discourages hand-holds; linked mesh rejects footholds. Heavy duty posts, rails, braces, tension bands and fittings withstand shock and impact. Pittsburgh gates, including these same resistant features, are equally effective barriers... yet they operate easily, swinging a full 180° on sturdy hinges or sliding wide open by hand or motor power. No other Chain Link Fence has all the desirable quality features of Pittsburgh. For complete erection service consult your classified telephone directory or write

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Pittsburgh Chain-Link Fence 

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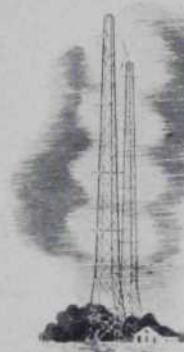
thanks to Industrial Teamwork...



RADIO ACCENTS personal enjoyment because industry's engineers ingeniously perfected a set of portable dimensions. This cozy instrument—today taken for granted—once presented a baffling batch of manufacturing problems. The solution came in tubes, loudspeaker and other high fidelity parts that are tiny enough to be effective, yet fit a shrunken case. Chemistry contributed a plastic container combining beauty with complete insulation. Thus INDUSTRIAL TEAMWORK—a hidden force that propels our production effort—blends the output of many industries to make a single, useful product. Insurance, the industry that protects other industries, helps to keep INDUSTRIAL TEAMWORK effective.

☆ **THE HOME** ☆
Insurance Company
NEW YORK

FIRE ★ AUTOMOBILE ★ MARINE INSURANCE



INSURANCE

Aids

Industrial Teamwork

To keep open industry's lines of communication, Insurance lends a helping hand. Its inspection and prevention services tend to reduce hazard and the threat of financial disaster. By paying losses that unavoidably occur, insurance neutralizes many forces that are unfriendly to industry. Finally, its reserve dollars are widely invested in all industry and become bone and muscle to the ramparts of production.

A VITAL SERVICE

**To Keep Power Drives
Rolling at Peak Efficiency
For Peak Production**

Regardless of whether it is in your own plant, producing war materials, or on the machine you are building to turn out war materials, slip and waste in the transmission of power will cut

down production. Morse representatives offer a vital service in helping you to prevent or eliminate these handicaps and thus boost production. Thoroughly trained in power transmission problems, they are able quickly to analyze, plan, or suggest installations of new drives or improvement of old drives. Let this vital service help you.



SILENT CHAINS

ROLLER CHAINS

FLEXIBLE COUPLINGS

CLUTCHES

MORSE positive DRIVES

MORSE CHAIN COMPANY ITHACA N. Y. DIVISION BORG-WARNER CORP.

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... please notify us promptly. Your copies of Nation's Business will then reach you without delay and without interruption.—NATION'S BUSINESS, 1615 H Street, N.W., Washington, D. C.

RUSHED TO DEATH?

Need help in Personnel Management, Purchasing, Contact or Administration? Executive of wide experience wishes to transfer from selling and advertising to production in essential industry, due to drastic curtailment of present activity. Inquire Box no. 50, Nation's Business, 1615 H St. N. W. Wash. D. C.

Luxuries in Government Must Go

(Continued from page 62)

Communist Russia," F.S.A. proclaimed it brought happiness, contentment, and prosperity to the under-privileged.

Now it is revealed that F.S.A. clients do not always, as claimed, pay their debts and anticipate their obligations out of the proceeds of their crops. A common practice, according to an investigator, is to extend "grants" with which to meet the obligations.

Investigation revealed also that tenants who produced an average of a bale of cotton to the acre under private operations produce a quarter of a bale under F.S.A. management. Clients are solicited with the promise that they may receive grants during the summer and return to town in winter and go on relief.

F.S.A. bought the Lord Scully plantation of several thousand acres in Missouri and divided it into units costing, including improvements, \$7,500 each, where farmers, dispossessed because their land was taken for war purposes, were to be located. Reports are that six families have been located.

Clients receiving grants with which to produce crops in the Mississippi Delta invest the money in fishing tackle and spend their time using it.

People want economy

WITH facts like these before it, a tax-conscious public is deluging Congress with mail. The folks back home are writing:

We are giving our sons to fight on all fronts of all the continents. We are assuming the inevitable burden of war. We are willing to do anything to help win the war. But we protest against useless and unnecessary expenditures, and activities which deprive our sons of materials for defense and jeopardize the security of the nation.

The country has but one thought, and that is winning the war. It calls for completion of the job of eliminating useless expenditures and conserving the nation's taxpaying resources.

A year ago the minority report of the House Ways and Means Committee, concurring on the tax bill, said:

The same critical state of affairs which calls for increase in taxes also requires that non-defense spending be drastically reduced, and all unnecessary and wasteful expenditures completely eliminated.

If the Government is going all out for national defense, and all out for taxes upon the people, it is compelled, both by necessity and by a regard for its obligations to the taxpayers of the country, also to go all out for economy.

The situation is more critical than it was a year ago. Many mothers are without assurance that their sons are certain to get back. The least they have a right to expect is that every dollar the Government spends is to arm, equip, and protect them so that they have a chance to come back and come back victoriously.

To speed your package on its trip
By dog sled, Parcel Post, or ship,
Provide the pilgrim with a flag
To wave—to wit, a SHIPPING TAG.
It gets attention in a trice,
Which makes it worth its
lowly price.

USE
Dennison
SHIPPING TAGS

One of the Dennison Handy Helpers:
Shipping Tags, Index Tabs, Trans-
parent Mending Tape, Mailing La-
bels, Caution Labels, Gummed Stars.

DENNISON MFG. CO., DEPT. S-74, FRAMINGHAM, MASS.

The **OFFICE VALET**

REPLACE LOCKERS
•
SAVE FLOOR SPACE
•
KEEP CLOTHES IN PRESS, AIRED AND SANITARY

Reclaim locker-room space for productive use with Modern No. 3-U Office Valet Racks that accommodate 3 or 6 persons per running foot, that come in any length, and fit in anywhere. Hold hats, coats, umbrellas, overshoes—no crumpling or crushing. Keep clothes "in press" and well aired. Office Valet Racks and non-tipping costumes are smartly made of welded steel construction, are beautifully finished in office green, brown or maroon baked enamel. They come on rubber shoes or rubber tired casters. Write for Catalog showing complete line of modern steel office, factory, school, and institution wardrobe equipment.

VOGEL-PETERSON CO.
"The Checkroom People"
1809 N. Wabash Ave., Chicago, U. S. A.

Congress Sits in the Driver's Seat

(Continued from page 58)

Congress, in order to retain executive favor for that district or state. In 1938 this was known as "the purge." It is an extra-constitutional assault upon the Constitution which calls for the independence of Congress.

Preserving civil rights?

THE advocates of "democratic socialism" also say that whatever they do to you economically, they will sacredly preserve your civil rights—free speech, for example. But who will say that the radio is free today, or in any event *feels* free?

Are lecture halls and laboratories free when they are suppliants for federal gravy? And if the Government begins to pay the newspapers for war advertisements, will the press be free? Will there not be a new "lord of the press" more autocratic than George the Third in 1776?

When "over a period of years the Government will gradually come to own most of the productive plants of the United States," as planned by Adolph Berle, Assistant Secretary of State, how free will the workers in those plants be to vote against their employer when he is the *only* employer?

Protect the right to work!

ANOTHER civil right which our planners should protect but do not is the right to work, which is the right to live, without which freedom of religion, press, assembly, trial by jury is but an empty phrase. Where is this right today? Ask the workers whose faces are being bashed in by goons protected by politicians.

There is no clear way out of the immense difficulties in which our generation finds itself, even excluding the war. The post-war period may exceed in its threat to freedom the period between the end of the Revolution and the ratification of the Constitution in 1787. That threat was overcome, not by the crowning of an American King, but by the creation of an independent executive, an independent Congress, an independent judiciary and independent states.

It has not been a perfect government, but under it more people have lived happily together for a longer period of time, over a larger extent of land, than any other people since page one of history was written.

The presumption of long experience is in its favor. The observation of current events confirm the wisdom of our fathers.

The "mystic chords of memory stretching from every patriot grave to every living heart" remind us that power over human lives is safe only when in the hands of the representatives of the people themselves so long as they "retain their virtue and vigilance."

Let Us Make It For You In Indiana

- Indiana manufacturers, both large and small, are ready and waiting to be of immediate service on almost any kind of war-production job.

There is a wide variety of manufacturing equipment ready to do your war work right now—and much that can be adapted to your needs very quickly.

In our offices we have access to the data you may be needing for quick production of some essential part on your war order. We know what can be done in Indiana and who can do it. We'll gladly tell you.

No red tape. If you want action write us at once.

Extra Floor Space Available, Too

Also, our current surveys show 200 industrial buildings, with 10,000,000 sq. ft. of floor space, immediately available in 92 Indiana cities and towns.

While Indiana's advantages have been strongly emphasized by large defense developments here, most Indiana communities are still free from the living and labor problems common to congested areas elsewhere.

Every city and town in Indiana shares the State's remarkable advantages for industry.



Security and Economy Here

Indiana is geographically the center of almost everything you want for today's war-time conditions, as well as those of the peace that is to come.

Nearer than most any state to both markets and materials, yet removed from congested areas and seaboard, manufacturers find maximum security, economy, and profit here.

WRITE FOR THIS DATA BOOK



Write us for further data on war contracts or additional factory floor space. We'll send you also our 20-page illustrated data booklet giving full details of Indiana's many industrial and living advantages. All inquiries confidential.

DIVISION OF STATE PUBLICITY • INDIANAPOLIS

F-522 Board of Trade Building • J. H. Albershardt, Director

FREE PORTFOLIO OF FAMOUS LETTERHEADS

LET us show you how we have helped to modernize the letterheads of American industry. Get our FREE portfolio and price list. Just attach this ad to your business letterhead and mail to

UNIVERSAL LITHOGRAPHING CO.

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CONDITIONED

RATES FROM

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16TH at K STREET

WASHINGTON, D. C.

CUT WASHING TIME



54" Circular Bradley Washfontain with foot-control.

GUARD HEALTH

Reduce Lost Man-Hours

• Better and adequate washing facilities are of major importance in preventing skin affections (Dermatitis) which physicians report are the cause of many lost man-hours. . . . Bradley Washfontains are providing time-saving, sanitary washing facilities in thousands of plants, airports, institutions,—facilities that help to reduce lost man-hours of vital war production. One Bradley serves 8 to 10 persons simultaneously, each with his own clean running water—Bradleys save space, too, and reduce water consumption by 70 per cent. Being of pre-cast marble or stone, they conserve critical materials. Write for "Washroom Layout" Booklet . . . BRADLEY WASHFONTAIN CO., 2205 W. Michigan St., Milwaukee, Wisconsin.

BRADLEY
washfontains



"When I'm a Grown-up Lady..."

"I'll have a beautiful house . . ."

Indeed you will, Susan. A wonderful house. We don't know exactly what it will be like. But it will be far nicer than today's houses, because *all* houses will be better in ever so many ways. And there will be many things in your house that aren't even invented yet.

"I'll have a big, shiny automobile . . ."

Or an airplane. Or even something like a magic carpet—who knows? Our radios and telephones and refrigerators all seemed like magic when we first heard of them.

"I'll have lots and lots of money . . ."

Money? Money isn't everything, Susan. But every nickel, every dollar will buy more than it does today. Go on.

"And—and—and I'll always be happy, like you!"

HAPPIER, we hope, Susan. For your visions are coming true. The tide we grown-ups call progress is moving in that direction; even wars can't stop it. The world you dream of is being made right now—in the laboratories, where scientists are discovering things that will make people happier—in the factories, where the very speed and efficiency developed for armament-building will make other products cost less and will make them more plentiful in years to come.

Your visions are coming true because so many people in so many organizations like General Electric are inspired by the hope—by the belief—that the world of tomorrow will be better than the world of today. And they are working to make it so. *General Electric Co., Schenectady, N. Y.*

★ ★ ★

American industry has accepted the responsibility of serving America, is accepting the responsibility of helping to defend America, will accept, tomorrow, the responsibility of helping to build a better America and a better world.

GENERAL  ELECTRIC

962-243N6-211

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What does do for you?



It makes you safer from firebugs!

Firebugs don't mind if people burn to death!

Fires that are set often gain tremendous headway before people know they are in danger. And... hundreds of brave firemen have lost their own lives in efforts to save victims of criminal fires.

Before the Arson investigators of the capital stock fire insurance companies began helping local authorities to track down firebugs throughout the country, it was estimated that 35% of property loss by fire was caused by such criminals.

Checkmating firebugs has changed all that. It is one of the many effective activities of these companies in their organized effort to make life and property safer and the cost of sound insurance lower.

The companies who've helped to put so many firebugs behind the bars are represented by your local insurance agent, whose personal service is an integral factor in the Standard Protection your property deserves.

**LET'S ALL GET
"STEAMED
UP"**



**THE RAILROADS ARE THE FIRST LINE OF DEFENSE
"KEEP 'EM ROLLING"**



One of a series illustrating Cyanamid's many activities

it's a good old American custom

One of the things about America that often surprises visitors from other countries is the abundance of good water... pure, clear, sparkling water, yours for the turning of a tap. It's an old American custom—like automobiles, skyscrapers, apple pie, and speaking up in town meeting.

But like most blessings, good water cannot be obtained, even in America, without effort and eternal vigilance. It is the product of scientific engineering, and its production is a big industry in itself. One of the most important materials used in the treatment of water at filtration plants is aluminum sulphate, or "alum," as it is usually called. Most natural waters carry great quantities of organic and inorganic matter in suspen-

sion, which must be coagulated before it can be removed. The addition of alum to the water results in the formation of small insoluble particles about which the impurities collect. Like snowballs rolling down hill, these nuclei grow larger and larger as the minute particles of "floc" gather about them and they sink to the bottom. Thus is the water "swept" clean of foreign matter and rendered sparklingly clear and colorless.

American Cyanamid produces a specially developed alum which is used by an increasing number of communities because of its new and superior coagulating properties.

In this manner Cyanamid chemistry unites with the work of public officials to promote safety and that sense of well-being which is so essential to a people occupied in an all-absorbing task.

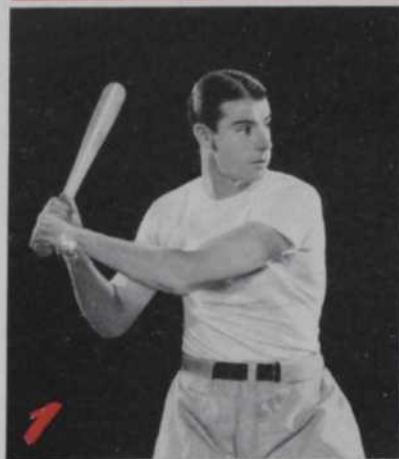


**American
Cyanamid Company**

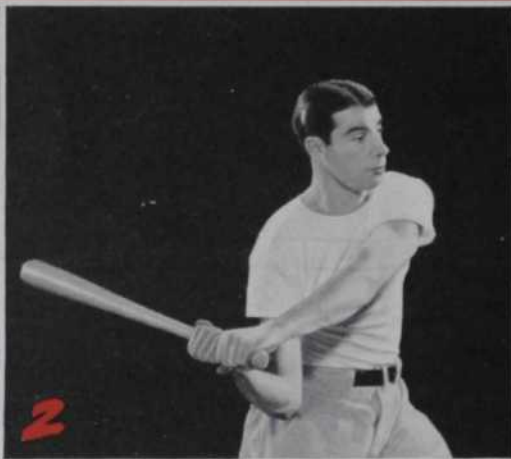
30 ROCKEFELLER PLAZA, NEW YORK, N. Y.

JOE DIMAGGIO'S MIGHTY SWING

Now for the first time the amazing stroboscopic camera analyzes the swing that made baseball history



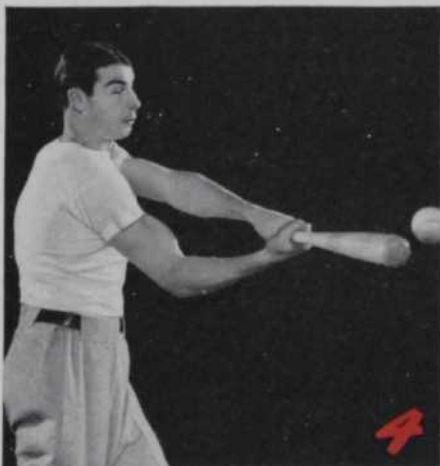
1 DiMaggio sizes up the pitch...



2 He starts that devastating swing...



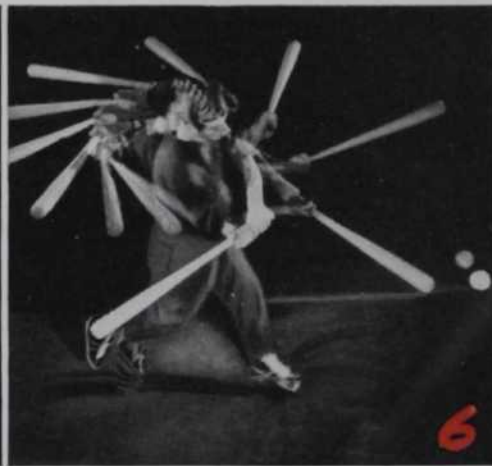
3 Squarely...solidly...bat meets ball.



4 With his eyes still focused on the batted ball...



5 Joe follows through in a tremendous release of driving power.



A remarkable series of repetitive flashes show you the famous DiMaggio swing and follow-through all in this one picture above. Below, at the left, you see Joe enjoying a Camel. For with Joe DiMaggio, when the game is over, it's "now for a Camel." Yes, *Camel*—the milder cigarette with less nicotine in the smoke.

I'VE SMOKED
CAMELS
FOR 8 YEARS.
THEY HAVE THE
MILDNESS THAT
COUNTS WITH
ME

Right off the bat, Joe DiMaggio, shown here at home, will tell you: "I find Camels easy on the throat—milder in every way. And they've got the flavor that hits the spot every time. You bet I like Camels!"

R. J. Reynolds Tobacco Co.,
Winston-Salem, N. C.



The smoke of slower-burning Camels contains

28% LESS NICOTINE

than the average of the 4 other largest-selling cigarettes tested—less than any of them—according to independent scientific tests of the smoke itself!



CAMEL

THE CIGARETTE OF
COSTLIER TOBACCOS